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CATALOGUE

OF THE

BIRDS

IN THE

BRITISH MUSEUM.

VOLUME XXIII.

LONDON:

PRINTED BY ORDER OF THE TRUSTEES.

1894.

CATALOGUE

OF THE

FULICARIÆ

(RALLIDÆ AND HELIORNITHIDÆ)

AND

ALECTORIDES

(ARAMIDÆ, EURYPYGIDÆ, MESITIDÆ, RHINOCHETIDÆ, GRUIDÆ, PSOPHIIDÆ, AND OTIDIDÆ)

IN THE

COLLECTION

OF THE

BRITISH MUSEUM.

BY

R. BOWDLER SHARPE.

LONDON:

PRINTED BY ORDER OF THE TRUSTEES.

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PREFACE.

The numbers of the species of the nine families treated of in the twenty-third volume, and of the specimens at present in the Collection, are as follows:—

	Species.	Types.	Specimens.
Rallidæ	187	39	2471
Heliornithidæ ..	4	1	45
Aramidæ	2	..	28
Eurypygidæ	2	..	26
Mesitidæ	1	..	1
Rhinochetidæ ..	1	..	3
Gruidæ	19	1	143
Psophiidæ.....	6	1	13
Otididæ	30	7	217
	252	49	2947

In the first category 29 forms are included which are considered by the author to be of only subspecific rank, while 33 species and subspecies are still unrepresented in the Collection of the Museum. Beside the 49 types of recognized species, the Collection contains 27 other typical specimens which are now relegated to the synonyms.

As in the preceding volumes, the series of specimens of the American and Indian species are derived chiefly from the Hume, Tweeddale, and Godman-Salvin Collections; but they have been

largely supplemented by a generous donation from Mr. Seebohm. For other additions to this volume the Trustees are indebted to the Right Hon. Lord Lilford, Colonel Irby, Mr. H. O. Forbes, Mr. P. L. Sclater, and Mr. F. W. Styan.

ALBERT GÜNTHER,
Keeper of the Department of Zoology.

British Museum (N. H.),
February 28, 1894.

INTRODUCTION.

To the present volume very few introductory remarks are necessary, as the families described in the following pages have perfectly well-defined limits, and there is little difference of opinion as to their position in an arrangement of the Class Aves.

The Hon. Walter Rothschild has lent me his entire collection of *Rallidæ*, an act of courtesy which I must especially acknowledge, inasmuch as without his series of Weka Rails from New Zealand, formerly in the Buller collection, I should have had serious difficulty in working out the species of *Ocydromus*. For the loan of specimens and types of species in the Museums under their charge, I have to thank Dr. Joyeux-Lafine of Caen, Prof. Paul Godet of Neuchâtel, Prof. Wilhelm Blasius of Brunswick, and Dr. Jentink of Leyden; while I have to acknowledge a like assistance from Mr. Howard Saunders, the Rev. H. H. Slater, and Canon Tristram.

The affixes to the specimens are the same as in the previous volumes of the 'Catalogue.' "[P.]" means "Presented by"; "[C.]" equals "Collected by"; "[E.]" signifies "Received in Exchange." Where none of these signs are used, the specimens have been acquired by purchase.

R. BOWDLER SHARPE.

British Museum (N. H.),
27th February, 1894.

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CATALOGUE

OF

BIRDS.

—•—

Order X. FULICARIÆ.

In accordance wtih the scheme of classification adopted for the Game-Birds and Water-Birds in the 'Catalogue of Birds,' the Order *Fulicariæ*, as limited by Dr. Sclater in his well-known arrangement of the Class "Aves," is hereby recognized. Mr. Seebohm, in his 'Classification of Birds,' places the *Fulicariæ* as a Suborder of his large Order "Grallo-Gralla;" but he also includes the Bustards (*Otididæ*), Hoatzins (*Opisthocomidæ*), Seriamas (*Cariamidæ*), Fin-feet (*Heliornithidæ*), Rails (*Rallidæ*), and Trumpeters (*Psophiidæ*). In my own arrangement of 1891, I placed the *Ralliformes* at some little distance from the groups which are usually considered to be their nearest allies; and, in fact, I still look upon the Rails as a very peculiar and isolated group of birds, so that it does not matter whether they be called *Fulicariæ* or *Ralliformes*, so long as they are not mixed up too closely with the Cranes and their allies. Osteological characters are given by Mr. Lydekker in his 'Catalogue of Fossil Birds' (pp. 143, 144).

Two families are placed under this order: the *Rallidæ*, p. 1, and the *Heliornithidæ*, p. 229.

Family I. RALLIDÆ.

Palate schizognathous.

Nasals holorhinal.

Dorsal vertebræ heterocœlous.

Posterior process of the ilium sufficiently perforated to show a broad sacrum.

Sternum with one notch on each side of the posterior margin.

Oil-gland tufted.

Aftershaft to the contour-feathers present.

Bill of various shapes—long in the true Rails, shorter and stouter in the Crakes, and very deep in the Gallinules, with the nasal opening pierced in the horny sheath.

Ambiens muscle present. Femoro-caudal muscle, accessory femoro-caudal, semitendinosus, accessory semitendinosus, and post-acetabular portion of the tensor fasciæ present.

Toes very slender and long, sometimes webbed and scalloped; hind toe always raised above the level of the others.

Eggs generally numerous, cream-coloured with dark spots.

Young, when hatched, covered with down, and able to run or swim in a few hours.

(*Cf.* Seebohm, Classif. B. p. 40; Sharpe, Classif. B. p. 70.)

Key to the Genera.

A. Culmen longer than the middle toe and claw, or at least equal in length to the latter.
  a. Tarsus shorter than the middle toe and claw, or at least not exceeding it.
    a'. Nasal groove very long, deep, and well marked; the nasal aperture situated nearer to the feathers at the base of the bill than to the anterior end of the nasal groove; tarsus always shorter than the middle toe and claw ..... 1. RALLUS, p. 6.
    b'. Nasal groove deep and well marked; the nasal aperture situated about the middle of the groove, as near to its anterior extremity as it is to the feathered portion of the bill at gape.
      a''. Genys either straight or up-curved towards the end of the mandible.
        a'''. Bill long; culmen equal to or exceeding the tarsus in length; a slight indication of a tiny frontal shield..... 2. LIMNOPARDALUS, [p. 27.
        b'''. Culmen not so long as the tarsus .. 3. HYPOTÆNIDIA, [p. 32.
      b''. Genys distinctly decurved at tip, following the line of the upper mandible. 4. CABALUS, p. 46.
  b. Tarsus longer than the middle toe and claw; a distinct longitudinal groove near the base of the lower mandible.
    c'. No sign of any frontal shield.
      c''. Tail longer than the tarsus.
        c'''. No bare patch behind the eye.
          *a*⁴. Wing-coverts not so abnormally elongated as to hide the quills .. 5. EULABEORNIS, [p. 49.
          *b*⁴. Plumage soft and hair-like; the wing-coverts greatly elongated, almost hiding the quills, to which they are equal in length ..... 6. TRICHOLIMNAS, [p. 51.
        d''. With a bare patch behind the eye . 7. GYMNOCREX, [p. 52.
      d''. Tail somewhat shortened, not so long as the tarsus..... 8. ARAMIDES, p. 53.

d'. A very distinct frontal shield; tail-feathers decomposed and hidden by the coverts; wings feebly developed and incapable of flight ..... 9. MEGACREX, p. 63.

e'. A small but evident frontal shield; tail long; wings fairly developed; plumage black ..... [p. 63. 10. HABROPTILA,

B. Culmen shorter than the middle toe and claw.

c. With no evident frontal shield.

f'. Wing-coverts elongated, so as to reach almost to the tip of the quills ..... [p. 64. 11. OCYDROMUS *,

g'. Wing-coverts not reaching nearly to the end of the quills.

e''. Tarsus greatly exceeding the middle toe and claw in length—in fact, by more than the length of the hind toe. [p. 69. 15. HIMANTORNIS,

f''. Tarsus seldom exceeding the length of the middle toe and claw, generally about equal to it, sometimes longer, but never exceeding it by as much as the length of the hind toe.

e'''. Tail distinct, and not hidden by the upper and under tail-coverts.

*c*⁴. Under wing-coverts and axillaries distinctly spotted or barred with white.

*a*⁵. Culmen longer than inner toe and claw.

*a*⁶. Nostrils longitudinal, very narrow, the nasal aperture scarcely perceptible † ..... [p. 70. 16. DRYOLIMNAS,

*b*⁶. Nostrils very large, oval and pervious ..... [p. 72. 17. CANIRALLUS,

*b*⁵. Culmen less than inner toe and claw.

*c*⁶. Secondaries not reaching to the end of the primaries .... 18. RALLINA, p. 74.

*d*⁶. Secondaries reaching quite to the end of the primaries.

*a*⁷. Wing-coverts very long and soft, hiding the primary-coverts; tail-feathers also soft, and with the webs dissociated; quills banded like axillaries ..... [p. 80. 19. CASTANOLIMNAS,

*b*⁷. Wing-coverts ordinary, as also the tail-feathers; quills uniform below; back mottled ..... 20. CRECOPSIS, p. 81.

* Somewhere here must be placed the extinct genera 12. *Aphanapteryx*, p. 68, 13. *Diaphoropteryx*, p. 68, and 14. *Erythromachus*, p. 69.

† This genus is perhaps not properly included in the Crakes, as it has much the appearance of a true Rail, and may have to be put near *Hypotænidia*, as the bill of the Aldabra form is more Ralline than Crecine.

d^4. Under wing-coverts and axillaries uniform.
e^5. Bill shorter, the culmen not so long as the inner toe.
e^6. Plumage striped above; tail pointed, the rectrices narrow. 21. CREX, p. 82.
f^6. Plumage uniform above; tail broad, the rectrices widened and decomposed at the ends ..... 22. ŒNOLIMNAS, [p. 86.
d^5. Bill longer, the culmen equal to the inner toe ..... 23. AMAUROLIMNAS, [p. 87.
f'''. Tail obsolete, composed of soft and decomposed feathers, which are scarcely distinguishable from the upper and under tail-coverts, by which they are completely hidden.. 24. ANUROLIMNAS, [p. 88.
g''. Middle toe and claw exceeding the tarsus in length.
g'''. Secondaries conspicuously shorter than the primaries, falling short of them by quite as much as the inner toe and claw; sexes different in colour ..... 25. ZAPORNIA, p. 89.
h'''. Secondaries shorter than the primaries, falling short of the latter by as much or more than the hind toe and claw, but not as much as the inner toe and claw ..... 26. PORZANA, p. 92.
i'''. Secondaries practically equal to the primaries in length, or falling short of them by less than the hind toe and claw.
e^4. Tail-feathers soft, decomposed at the ends, and entirely hidden by the coverts ..... 27. PENNULA, p. 114. 28. APHANOLIMNAS.
f^4. Tail-feathers soft, decomposed at the ends, but evident. [p. 115.
e^5. Nostrils pervious ..... 29. CORETHRURA,
f^5. Nostrils closed by a bony septum, not pervious ..... 30. RALLICULA, [p. 115.
g^4. Tail-feathers ordinary, the ends not decomposed. [p. 123.
g^5. Nostrils not pervious, but having a bony septum ..... 31. THYRORHINA, [p. 125.
h^5. Nostrils pervious.
g^6. With white secondary quills . 32. ORTYGOPS, p. 126.
h^6. With no white secondary quills.
c^7. Toes long, the inner toe (without claw) longer than the culmen.
a^8. Secondaries and primaries practically equal in length; no sign of a frontal shield or swollen base of culmen.

a^9. Plumage variegated.
a^{10}. Wings and feet very strongly developed; the wings as long as the tarsus and toes combined .... 33. POLIOLIMNAS, [p. 130.
b^{10}. Wing feebly developed, not so long as the tarsus and toes combined .... 34. PORZANULA, [p. 133.
c^{10}. Wing fully developed, nearly one third longer than the tarsus and toes combined ..... 35. CRECISCUS, [p. 134.
b^9. Plumage uniform black. 37. LIMNOCORAX, [p. 150.
b^8. Secondaries shorter than primaries; no frontal shield ..... 36. LIMNOBÆNUS, [p. 145.
c^8. Secondaries shorter than primaries; the culmen slightly swollen at the base, but not forming a frontal shield ..... 38. AMAURORNIS, [p. 152.
d^7. Toes shorter; inner toe (without claw) not exceeding the full length of the culmen.
d^8. Bill long and slender, nasal groove deep and prolonged anteriorly, the distance between the anterior edge of the nasal aperture and the anterior end of the groove itself as great as the distance between the posterior end of the nasal aperture and the gape.. 39. ROUGETIUS, [p. 162.
e^8. Bill stout and deep, nasal groove indistinct and broad..... 40. NEOCREX, p. 163.

d. With frontal shield.
h'. Toes short, not exceeding the tarsus in length.
h''. Nostrils oval, large and pervious, occupying the fore part of the nasal groove; frontal shield not distinctly formed, but an evident dilatation of the culmen at the base.
h'''. Size large: length 18 inches. Wings feeble; primaries and secondaries equal in length..... 41. TRIBONYX, p.164.
l''. Size smaller: not exceeding 12 inches. Primaries exceeding secondaries by as much as length of inner toe ..... 42. MICROTRIBONYX, [p. 165.

i''. Nostrils linear, not pervious, situated along the lower edge of the nasal groove; a large frontal shield ..... [p. 166.
43. Pareudiastes,

i'. Toes long, the middle toe and claw exceeding the tarsus in length.

k''. Toes not lobed laterally; secondaries decidedly shorter than primaries.

m'''. Nostrils oval, in a distinct nasal depression.

*h*⁴. Toes with a narrow lateral membrane *; no lobes.

*i*⁵. Frontal shield rounded or truncate posteriorly.

*i*⁶. Wings feebly developed, not three times the length of tarsus..... [p. 166.
44. Porphyriornis.

*k*⁶. Wings long, nearly four times the length of tarsus..... [p. 167.
45. Gallinula,

*k*⁵. Frontal shield pointed posteriorly. 46. Porphyriops,

*i*⁴. Toes with no lateral membrane. [p. 182.

*l*⁵. Sexes different: a large posterior caruncle on the frontal shield . 47. Gallicrex †,

*m*⁵. Sexes similar: blue and green in the plumage; no posterior caruncle on frontal shield .... [p. 183.
49. Porphyriola,

n'''. Nostrils rounded; no nasal depression; blue in plumage.

*k*⁴. Wing-coverts ordinary, the secondaries much shorter than the primaries ..... [p. 192.
50. Porphyrio,

*l*⁴. Wing-coverts much elongated, nearly hiding the quills; the secondaries nearly as long as the primaries ..... [p. 207.
51. Notornis ‡,

l''. Toes lobed laterally; primaries equal to secondaries ..... 53. Fulica §, p. 209.

1. RALLUS ‖.

	Type.
Rallus, *Linn. Syst. Nat.* i. p. 261 (1766)	R. aquaticus.
Biensis, *Pucher. Rev. Zool.* 1845, p. 278	R. madagascariensis.
Limnopardalis (*nec Cab.*), *Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890)	R. elegans.

Range. Almost cosmopolitan, but not extending very high north.

* Nearly obsolete in *Porphyriornis*.

† Here must probably be inserted 48. *Psammocrex*, p. 186.

‡ Probably here must be placed the extinct genus 52. *Aptornis*, p. 207.

§ Here must be inserted the extinct genus 54. *Leguatia*, p. 225.

‖ Rallus peruvianus.

Rallus peruvianus, *Taez. Orn. Pérou*, iii. p. 313 (1886).

Upper surface rufous-olive, spotted with black; under surface of body with the sides of the head and of the neck leaden grey; the centre of the throat slightly paler; flanks black, banded with white; centre of the belly washed with buff; lateral under tail-coverts entirely white, the middle ones black, banded with white; wings above uniform with the back, the under wing-coverts

Key to the Species.

A. Breast uniform, without any longitudinal streaks on the fore neck; sides of breast not streaked with black.
  a. Upper parts brown, streaked with black.
    a'. Breast with cinnamon or vinous colour, or sandy buff.
      a''. Much larger: wing 5 inches and more.
        a'''. Wing-coverts chestnut or ferruginous.
          a^1. Lower flanks broadly barred with black and white, the bars being about equal in width ..... *elegans*, p. 8.
          b^1. Lower flanks with very narrow bars, the whitish bars much narrower than the brown ones.
            a^2. Narrow bars on lower flanks pure white ..... *beldingi*, p. 10.
            b^2. Lower flanks pale brown, with rusty whitish cross bars .... *tenuirostris*, p. 10.
        b'''. Wing-coverts brown or olive-brown, sometimes with a rufescent tinge ..... *longirostris* and its allies, [pp. 10–16.
      b''. Much smaller: wing less than 4·5 inches ..... *virginianus*, p. 16. / *æquatorialis*, p. 18.
    b'. Breast uniform grey, with no vinous.
      c''. Wing-coverts chestnut.
        c'''. Olive-brown above, with black centres to the feathers; under tail-coverts white, with black spots at the ends ..... *semiplumbeus*, p. 19.
        d'''. Upper surface sandy brown, with black centres to the feathers; under tail-coverts pure white.... *antarcticus*, p. 19.
      d''. Wing-coverts brown.
        e'''. Lores dusky; no blackish streak through the eye; sides of face uniform ..... *aquaticus*, p. 20.
        f'''. Lores blackish as well as the streak through the eye along the ear-coverts; sides of neck profusely streaked with black like the back ..... *indicus*, p. 24.
  b. Upper parts uniform brown; breast dark grey ..... *cærulescens*, p. 25.
B. Breast dark vinous, with black streaks on the fore neck, sides of neck, and sides of breast ..... *madagascariensis*, p. 26.

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dusky, varied with white; tail-feathers blackish in the middle, laterally with broad rufous-olive margins. Bill 1·56 inches, wing 4·48, tail 2·08, tarsus 1·44, middle toe 1·6.

The typical specimen was described by the late Prof. Taczanowski from a single specimen, without indication of sex or locality, from the collection of Dr. Raimondi, of Lima. It is said to be very similar to *Rallus aquaticus* of Europe, and to differ from it only in its smaller size, much more rufous coloration, and in the absence of the white mark on the throat.

1. Rallus elegans.

Rallus crepitans (*nec Gm.*), *Wils. Amer. Orn.* vii. p. 112, pl. lxii. fig. 2 * (1814); *Jard. ed. Wils. Amer. Orn.* iii. p. 16, pl. lxii. fig. 2 (1832); *Reichenb. Handb., Fulicariæ*, Taf. cxv. figs. 1150–51 (1851).

Rallus elegans, *Audub. B. Amer.* pl. cciii. (c. 1826); *id. Orn. Biogr.* iii. p. 27 (1835); *Bp. Comp. List B. Eur. & N. Amer.* p. 53 (1838); *Audub. B. Amer.* 8vo, v. p. 160, pl. 309 (1842); *Giraud, B. Long Isl.* p. 209 (1844); *Gray, List Grallæ Brit. Mus.* p. 116 (1844); *id. Gen. B.* iii. p. 593 (1846); *Bp. C. R.* xliii. p. 598 (1856); *Gundl. J. f. O.* 1856, p. 427 (Cuba: breeding); *Baird, B. N. Amer.* p. 746 (1858); *Dresser, Ibis*, 1866, p. 40 (Texas); *Lawr. Ann. Lyc. N. Y.* viii. p. 295 (1866); *Coues, Proc. Essex Inst.* v. p. 296 (1868: Connecticut); *id. Proc. Bost. Soc. N. H.* xii. p. 124 (1868: S. Carolina); *Scl. & Salv. P. Z. S.* 1868, p. 444; *Turnb. B. E. Pennsylv.* p. 33 (1869); *Allen, Bull. Mus. C. Z.* ii. p. 357 (1871); *Coues, Key N. Amer. B.* p. 273 (1872); *Snow, B. Kansas*, p. 10 (1873); *Coues, B. N.-West*, p. 535 (1874); *Gundl. Orn. Cuba*, p. 298 (1876); *Mayn. B. E. N. Amer.* p. 428 (1879); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 201 (1880); *id. Bull. Nutt. Club*, v. p. 139 (1880); *Coues, Check-list N. Amer. B.* p. 109 (1882); *Stearns, N. Engl. B.-Life*, ii. p. 282 (1883); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 353 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 672 (1884); *Talbot, Auk*, i. p. 97 (1884: Dakota); *Agersb. Auk*, ii. p. 287 (1885: S.E. Dakota); *A. O. U. Check-l. N. Amer. B.* p. 140 (1886); *Ridgw. Man. N. Am. B.* p. 138 (1887); *Lloyd, Auk*, iv. p. 299 (1887: W. Texas); *Richmond, Auk*, v. p. 20 (1888: Distr. Columbia); *Cory, t. c.* p. 53; *Dutcher, t. c.* p. 176 (Long Island); *Chapm. t. c.* p. 269 (Florida); *Cory, B. West Ind.* p. 253 (1889: Cuba); *Thomps. Proc. U.S. Nat. Mus.* xiii. p. 494 (1890: Manitoba); *Miller, Auk*, ix. p. 39 (1892: Mass.); *Scott, t. c.* p. 212 (Florida).

Aramus elegans, *Gray, Hand-l. B.* iii. p. 59, no. 10417 (1871).

Adult male. General colour above olive-brown, with longitudinal black centres to the feathers; scapulars like the back; lower back, rump, and upper tail-coverts rather more uniform and less olive-brown, the black centres to the feathers not being so distinct; wing-coverts rufous, inner ones washed with olivaceous; bastard wing-feathers sepia-brown, rufescent on the outer web; primary-coverts uniform sepia; quills sepia-brown, edged with lighter brown; the innermost secondaries ruddy olive, with black centres like the back; tail-feathers olive-brown, with longitudinal black centres; crown of head and hind neck uniform blackish brown, with very slight remains of lighter brown edges to the latter; lores dull ashy, as also the sides of the face; a supraloral streak of cinnamon-buff, continued into an indistinct eyebrow of dusky cinnamon; a whitish spot below the eye; ear-coverts dull ashy, tinged with cinnamon,

* Dr. Coues and other American ornithologists quote the figure, but not the description of Wilson, as referring to the King Rail. Of the two, the figure is the least satisfactory; whereas there can surely be no doubt as to the description—"Wing-coverts are chestnut."

more distinct on the cheeks; chin and upper throat white; lower throat, fore neck, and breast vinous cinnamon; sides of the breast olive, with blackish centres to the feathers; abdomen whitish; sides of body and flanks light brown, barred with white, each white bar bordered with dusky blackish, and very much narrower than the brown bars; thighs white, barred with brown, uniform brown posteriorly; vent-feathers and central under tail-coverts barred with white, the bars not always traversing both webs in the latter, and reduced to large subterminal spots of black on the outer under tail-coverts, which are otherwise pure white; under wing-coverts dusky blackish, crossed with narrow lines of white: "lower mandible and edges of upper one brownish yellow; ridge of upper one and tips of both deep brown; feet yellowish brown, tinged with olive; iris bright red" (*J. J. Audubon*). Total length 14·5 inches, culmen 2·4, wing 6·5, tail 2·6, tarsus 2·2, middle toe and claw 2·6.

Nestling. Covered with black down; the feathers of the under surface pale sandy buff on their first appearance, including the throat. The full-grown young birds are like the adults on the upper surface, but differ entirely in colour on the under surface; the throat is white, the lower throat, fore neck, and chest tinged with cinnamon; the breast is isabelline white, the sides of the neck and the sides of the body ashy, and most of the feathers of the breast and neck with a blackish or dull ashy tip; the flanks barred with dull ashy blackish. In one full-grown young specimen the under tail-coverts are regularly barred with black and white; whereas in the other, shot five days earlier, the under tail-coverts are white, with black subterminal spots.

In adult birds considerable variation is seen in the colour of the flanks, wherein some examples have these parts barred with brown and white, whereas others have the bars quite black. In every case the white bars are conspicuously narrower than the dark ones, and this is especially the case with young birds after their first moult, when the white bars are often extremely narrow and in some cases almost obsolete. The lateral under tail-coverts are occasionally pure white, but this is not often the case.

Hab. Confined to North America, from Canada to the Middle and Eastern United States to Texas and Florida. Cuba.

a, b. Ad. st.	North America.	J. J. Audubon, Esq.
c. ♂ ad. sk.	Kankakee, Illinois, May (*R. Ridgway*: *Hensh. Coll.*).	Salvin-Godman Coll.
d, e. ♀ ad. sk.	Chicago, Mar. 27 (*C. E. Aiken*: *Hensh. Coll.*).	Salvin-Godman Coll.
f. Pull. sk.	Bone Island, Virginia, July 14 (*R. Ridgway*).	Salvin-Godman Coll.
g. Pull. sk.	Cobb's Island, Virginia, July 4 (*W. Brewster*).	Salvin-Godman Coll.
h, i, k. ♂ ad.; *l.* Pull. sk.	De Soto Co., Florida, June, Nov., Jan. (*W. R. Dean*).	Salvin-Godman Coll.
m, n. Juv. sk.	Tarpon Springs, Florida, Aug. (*W. E. D. Scott*).	Salvin-Godman Coll.

o. ♀ ad. sk.	Brownsville, Texas, Mar. 28 (*F. B. Armstrong*).	Salvin-Godman Coll.
p. Ad. sk.	San Cristobal, Cuba (*G. F. Gaumer*).	Salvin-Godman Coll.

Subsp. *α*. Rallus beldingi.

Rallus beldingi, *Ridgw. Proc. U.S. Nat. Mus.* v. p. 345 (1882); *Belding, t. c.* p. 545; *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 356 (1884); *A. O. U. Check-l. N. Amer. B.* p. 140 (1886); *Ridgw. Man.* p. 138 (1887).

Adult. Flanks hair-brown, distinctly barred with pure white, the white bars bordered on each side by a blackish bar; ground-colour of upper parts olive; lores dark brown, bordered above by a stripe of pale cinnamon. Length about 15–16 inches, wing 5·7–6·4 (average 6·03), culmen 2·25–2·50 (2·37), least depth of bill 0·29–0·35 (0·31), depth at base 0·5, tarsus 1·88–2·1 (1·93), middle toe 1·75–1·90 (1·81). (*Cf.* Ridgw. Man. p. 138.)

Hab. Eastern coast of Lower California (La Paz, Espiritu Santo Island, &c.).

Subsp. *β*. Rallus tenuirostris.

Rallus longirostris (*nec Bodd.*), *Scl. P. Z. S.* 1864, p. 179 (City of Mexico).
Rallus elegans, var. tenuirostris, *Lawr. MSS.*; *Ridgw. Amer. Nat.* viii. p. 14 (1874); *id. Bull. Nutt. Orn. Club*, v. p. 139 (1880), note.
Rallus elegans tenuirostris, *Ridgw. Bull. Nutt. Orn. Club*, v. p. 139 (1880); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 354 (1884); *Ferrari-Perez, Proc. U.S. Nat. Mus.* ix. p. 177 (1886: Tlaxcala).
Rallus tenuirostris, *Ridgw. Man. N. Amer. B.* p. 138 (1887).

Adult. Similar to *R. elegans*, but distinguished by the brown colour of the lower flanks, which are numerously crossed by narrow whity-brown bars. Total length 16 inches, culmen 2·2, wing 5·9, tail 2·35, tarsus 2, middle toe and claw 2·3.

Hab. Valley of Mexico.

a, *b*. Ad.; *c*. Imm. sk.	Near the City of Mexico.	Salvin-Godman Coll.
d. Juv. sk.	Mexico.	Old Coll.

2. Rallus longirostris.

Râle à long bec de Cayenne. *Daubent. Pl. Enl.* ix. pl. 849.
Le Râle à long bec, *Buff. Hist. Nat. Ois.* viii. p. 163 (1781).
Long-billed Rail, *Lath. Gen. Syn.* iii. pt. i. p. 237 (1785).
Rallus longirostris, *Bodd. Tabl. Pl. Enl.* p. 52 (1783); *Gm. Syst. Nat.* i. p. 718 (1788); *Reichenb. Handb., Fulicariæ*, Taf. cvi. figs. 1150–1151 (pt., 1851); *Bp. C. R.* xliii. p. 598 (1856); *Schl. Mus. Bays-Bas*, Ralli, p. 11 (1865, pt.); *Scl. & Salv. P. Z. S.* 1868, p. 444 (pt.); *Mayn. B. East. N. Amer.* p. 427 (1879); *Ridgw. Bull. Nutt. Orn. Club*, v. p. 139 (1880); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 358 (1884); *Salvin, Ibis*, 1886, p. 176.

Rallus crepitans (*nec Gm.*), *Cab. in Schomb. Reis. Guian.* iii. p. 760 (1848).
Aramus longirostris, *Gray, Hand-l. B.* iii. p. 59, no. 10418 (1871).
Rallus cypereti, *Tacz. P. Z. S.* 1877, p. 747; *id. Orn. Pérou*, iii. p. 315 (1886).
Limnopardalis longirostris, *Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890).

Adult. General colour above ashy olive, the feathers longitudinally centred with blackish brown; scapulars like the back; lower back, rump, and upper tail-coverts more uniform ashy olive, the blackish centres to the feathers not so strongly marked; wing-coverts more olive-brown, uniform, except for blackish shaft-lines; the outer median and greater coverts with a ruddy tinge externally; bastard-wing externally edged with rufous; primary-coverts and quills dark sepia-brown, edged with olive-brown; the innermost secondaries broadly edged with ashy olive like the back; tail-feathers ashy brown, broadly centred with blackish; crown of head slightly browner than the back, with darker longitudinal centres, but not so distinctly indicated as on the back; below the eye a whitish spot; lores and sides of face ashy, with a slight shade of reddish on the ear-coverts; above the lores a streak of vinous; cheeks isabelline like the lower throat, chest, and upper breast; chin and upper throat white; lower breast and centre of abdomen white, tinged with isabelline; sides of body and flanks barred with ashy brown and white, the brown bars being the widest; thighs uniform ashy, isabelline on the inner face; under tail-coverts white, the basal ones freckled with spots and bars of dusky; under wing-coverts and axillaries dusky brown, barred across with white: "bill horny brown, the lower mandible reddish brown for nearly the basal half, as well as the edge of the upper mandible; tarsus pale orange-yellow in front, brownish grey behind; the rest of the feet brown, the toes clearer brown, inclining to fleshy; iris sienna-brown, greyish round the pupil" (*J. Stolzmann*). Total length 10·5 inches, culmen 1·85, wing 5, tail 1·75, tarsus 1·6, middle toe and claw 2.

Hab. Guiana, probably through the Oronoco region, to Western Peru.

a. Ad. sk.	Berbice, Guiana.	J. J. Quelch, Esq. [P.].
b. ♂ ad. sk.	Santa Lucia, Tumbez, W. Peru (*Stolzmann*).	Salvin-Godman Coll.

Subsp. a. Rallus crassirostris.

Rallus longirostris (*nec Gm.*), *Burm. Th. Bras.* iii. p. 381 (1856: Bahia); *Pelz. Orn. Bras.* p. 458 (1871); *Forbes, Ibis*, 1881, p. 358 (Pernambuco).
Rallus crassirostris, *Lawr. Ann. Lye. N. Y.* x. pp. 19, 20 (1869: Bahia).
Rallus longirostris, pt., *Baird Brewer, & Ridgw. Water-B. N. Amer.* i. p. 358 (1884).

Adult. Similar to *R. longirostris*, but with a somewhat stouter bill, and the legs yellowish (in skin). Total length 12 inches, culmen 2, wing 5·4, tail 2·1, tarsus 1·55, middle toe and claw 2.

Hab. Brazil.

a, b. Ad. sk.	Bahia, Brazil (*Dr. Lushnath*).	Salvin-Godman Coll.

Subsp. β. Rallus crepitans.

The Clapper Rail, *Penn. Arctic Zool.* ii. p. 490 (1785); *Lath. Gen. Syn.* iii. pt. i. p. 229 (1785).

Rallus crepitans, *Gm. Syst. Nat.* i. p. 713 (1788); *Audub. B. Amer.* pl. cciv. (c. 1826); *Nutt. Man.* ii. p. 201 (1834); *Audub. Orn. Biogr.* iii. p. 33 (1835); *Bp. Comp. List B. Eur. & N. Amer.* p. 53 (1838); *Audub. B. Amer.* 8vo, v. p. 165, pl. 310 (1842); *Giraud, B. Long Isl.* p. 206 (1844); *Gray, List Grallæ Brit. Mus.* p. 116 (1844); *id. Gen. B.* iii. p. 593 (1846); *Bp. C. R.* xliii. p. 598 (1856); *Cabot, Proc. Bost. Soc. N. H.* iii. p. 326 (1851); *Baird, B. N. Amer.* p. 747 (1858); *Lawr. Ann. Lyc. N. Y.* viii. p. 295 (1866); *Coues, Proc. Bost. Soc. N. Hist.* xii. p. 124 (1868: S. Carolina); *id. Amer. Nat.* iii. pp. 600–607 (1870); *Allen, Bull. Mus. C. Z.* iii. p. 182 (1872: Utah); *A. O. U. Check-l. N. Amer. B.* Suppl. ii. in *Auk*, vii. p. 64 (1890); *Scott, Auk*, ix. p. 212 (1892: Florida, winter).

Rallus longirostris (*nec Bodd.*), *Coues, Key N. Amer. B.* p. 273 (1872); *id. B. N.-West*, p. 536, note (1874); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 358 (1884).

Rallus longirostris, var. crepitans, *Ridgw. Bull. Nutt. Orn. Club*, v. p. 140 (1880).

Rallus longirostris crepitans, *Ridgw. Proc. U.S. Nat. Mus.* iii. p. 201 (1880); *Coues, Check-l. N. Amer. B.* p. 108 (1882); *Stearns, N. Engl. Bird-Life*, ii. p. 279 (1883); *Coues, Key N. Amer. B.* 2nd edit. p. 672 (1884); *Dutcher, Auk*, i. p. 175 (1884: Long Island); *Lawr. Auk*, ii. p. 274 (1885: Long Island); *A. O. U. Check-l. N. Amer. B.* p. 141 (1886); *Ridgw. Man. N. Amer. B.* p. 136 (1887); *Shick, Auk*, vii. p. 327 (1890: New Jersey).

Adult. Similar to *R. longirostris*, but ashy grey above, with brown centres to the feathers; the fore neck and chest ashy brown, with pale isabelline vinous on the chest and breast; the white bars on the lower flanks very narrow; the under tail-coverts for the most part pure white, the central ones with broad bands of black and narrow bands of white. Further distinguished from *R. longirostris* by its much longer bill and less frequent bars on the under wing-coverts and axillaries: "lower mandible and edges of upper mandible yellowish brown; ridge of upper one and tips of both deep brown; feet pale livid grey, tinged with orange about the tibio-tarsal joint; claws dusky; iris pale yellow" (*J. J. Audubon*). Total length 14 inches, culmen 2·6, wing 6, tail 2·3, tarsus 2·05, middle toe and claw 2·3.

Hab. Eastern North America.

a, b. Ad. st.	North America.	J. J. Audubon, Esq. [P.].
c. Ad. sk.	North America.	Old Coll.

d. ♀ juv. sk.	Cobb's Island, Virginia, July 23 (*P. L. Jouy*: *Hensh. Coll.*).	Salvin-Godman Coll.
e, f. Pull. sk.	Cobb's Island, July (*H. W. Henshaw*).	Salvin-Godman Coll.
g. Pull. sk.	Bone Island, Virginia, July (*R. Ridgway*: *Hensh. Coll.*).	Salvin-Godman Coll.
h. Ad. sk.	Georgia (Sm. no. 23716).	Salvin-Godman Coll.
i. Ad. sk.	Corpus Christi, Texas, Dec. 5 (*F. B. Armstrong*).	Salvin-Godman Coll.

Subsp. γ. Rallus caribæus.

Rallus longirostris (*nec Bodd.*), *D'Orb. in Ramon de la Sagra's Hist. Nat. Cuba, Aves*, p. 260 (1839); *Gosse, B. Jamaica*, p. 364 (1847); *A. & E. Newt. Ibis*, 1859, p. 260 (S. Croix); *Cass. Proc. Philad. Acad.* 1860, p. 378 (S. Thomas); *Léot. Ois. Trinid.* p. 491 (1866); *A. & E. Newt. Handb. Jamaica*, p. 114 (1884); *Cory, B. Bahamas*, p. 176 (1890).

Rallus crepitans (*nec Gm.*), *Gundl. J. f. O.* 1856, p. 427 (Cuba); *Bryant, Proc. Bost. Soc. Nat. Hist.* vii. p. 122 (1859: Bahamas); *Brewer, t. c.* p. 308 (1860: Cuba); *Scl. P. Z. S.* 1861, p. 81 (Jamaica); *Albrecht, J. f. O.* 1862, p. 206; *Gundl. Orn. Cuba*, p. 298 (1876); *Lawr. Proc. U.S. Nat. Mus.* i. p. 450 (Guadeloupe; Martinique), p. 461 (1878: Guadeloupe); *id. t. c.* p. 487 (Barbuda; Antigua).

Rallus elegans (*nec Aud.*), *March, Proc. Philad. Acad.* 1864, p. 69 (Jamaica).

Rallus longirostris, var. caribæus, *Ridgw. Bull. Nutt. Orn. Club*, v. p. 140 (1880); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 359 (1884).

Rallus longirostris caribæus, *Cory, List B. West Ind.* i. p. 29 (1885); *id. Auk*, v. p. 53 (1888); *Sennett, t. c.* p. 19; *Chapm. t. c.* p. 394; *Cory, B. W. Ind.* p. 254 (1889); *Scott, Auk*, ix. p. 11 (1892: Jamaica).

Rallus coryi, *Maynard, Amer. Exch. & Mart* (!!), Boston, Jan. & Feb. 1887 (*teste Cory*); *Cory, B. W. Ind.* p. 254 (1889); *Northrop, Auk*, viii. p. 77 (1891: Andros Island, Bahamas); *Cory, t. c.* pp. 291, 295 (Nassau Isl.; Berry Isl.; New Providence; Caicos Islands); *Maynard, Contr. Sci.* i. p. 39 (1890).

Adult. Similar to *R. crepitans*, but everywhere much paler, the centres to the feathers of the upper surface being light brown, the edges light ashy. Total length 15 inches, culmen 2·65, wing 6, tail 2·5, tarsus 2, middle toe and claw 2·2.

Hab. West Indies—Bahamas, Jamaica, S. Croix, S. Thomas, Guadeloupe, Martinique, Barbuda, Antigua.

a. Ad. sk.	Jamaica.	Salvin-Godman Coll.
b. Ad. st.	Jamaica.	J. Gould, Esq.
c. Sternum.	Jamaica.	Philip Gosse, Esq. [C.].

Subsp. δ. Rallus saturatus. (Plate I.)

Rallus crepitans (*nec Gm.*), *G. C. Taylor, Ibis*, 1862, p. 129 (Florida); *Allen, Bull. Mus. C. Z.* ii. p. 357 (1871).

Rallus longirostris, var. saturatus, *Henshaw, MSS.*; *Ridgw. Bull. Nutt. Orn. Club*, v. p. 140 (1880).

Rallus longirostris saturatus, *Ridgw. Proc. U.S. Nat. Mus.* iii. p. 201 (1880); *Coues, Check-l. N. Amer. B.* p. 109 (1882); *id. Key N. Amer. B.* 2nd ed. p. 672 (1884); *A. O. U. Check-l. N. Amer. B.* p. 141 (1886); *Ridgw. Man. N. Amer. B.* p. 137 (1887).

Rallus longirostris, γ. saturatus, *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 359 (1884).

Rallus longirostris scottii, *Sennett, Auk*, v. p. 305 (1888); *Chapm. t. c.* p. 394.

Rallus crepitans saturatus, *A. O. U. Check-l.* 2nd Suppl., *Auk*, vii. p. 65 (1890).

Rallus scottii, *A. O. U. Check-l.* 2nd Suppl., *Auk*, vii. p. 65 (1890); *Brewster & Chapm. Auk*, viii. pp. 133–135 (1891: Suwanee River); *Scott, Auk*, ix. p. 212 (1892: Florida).

Adult male. Similar to *R. crepitans*, but everywhere much darker. Total length 14·5 inches, culmen 2·45, wing 6, tail 2·45, tarsus 2·1, middle toe and claw 2·2.

Adult female. Similar to the male in colour. Total length 13·5 inches, culmen 2·3, wing 5·6, tail 2·2, tarsus 1·8, middle toe and claw 1·95.

Nestling. Covered with black down on the upper surface, the feathers as they appear being black with grey margins; a spot below the eye, a broad malar stripe, and the chin pure white, as well as the abdomen; on the fore neck and chest is a very distinct tinge of pale vinous; the thighs isabelline white, with dusky tips to the feathers; sides of the body dusky blackish, with a few whitish bars.

The above description is taken from nestlings procured by Mr. W. E. D. Scott in May and June.

The characters of the full-grown young birds are not very forcibly indicated as regards the colour of the upper surface. Six specimens obtained by Mr. Scott in August do not differ from the old bird in any appreciable way, the head in every case being uniform blackish brown, while the centres to the feathers of the upper parts vary between brown and black, the black-centred feathers being apparently the new ones donned at the first autumn moult. The under surface of the body is, for the most part, olive-brown, the flanks showing a few narrow bars of whitish, these bars having a dusky margin. The throat is white, shading gradually off into pale vinous buff on the lower throat and towards the cheeks, the latter being pale vinous, like the fore neck and chest, the feathers of which are obscured by dusky-olive tips; thighs ashy, with dusky cross bars of isabelline; under tail-coverts white, none of the feathers pure white, but most of them showing large twin spots of black; sides of face and sides of crown dark grey. Other specimens have the whole of the breast whitish, like the abdomen, with dusky tips and edges to the feathers. Some individuals, on the other hand, have the greater part of the under surface pale isabelline vinous or light cinnamon; the under tail-coverts black, barred across with white.

The specimens killed by Mr. Scott after the moult are not numerous enough for me to determine precisely the exact character of the young bird in its first full winter plumage. In a large series

obtained by the above-named gentleman between November and March there is really very little variation in colour; but in the amount of white barring and in the breadth of white bars on the flanks there is very considerable difference. The broader bars on the flanks are accompanied by whiter under tail-coverts, and I take it that these are the older birds. It appears to me to be quite clear that the pattern of the under tail-coverts gradually changes, and that the bars break up into streaks and ultimately into subterminal spots, or they may disappear entirely. It is also apparently a sign of winter plumage that the under surface should be obscured by greyish or dusky edges to the feathers. These would seem to wear off, leaving the cinnamon colour of the throat and breast apparent. No regular season appears to exist for the full development of the cinnamon breast, for both in December and January bright-breasted specimens occur, while most of the dingily-coloured birds were procured in March.

Mr. Ridgway's characters for the separation of the Clapper Rails do not satisfy me any more than do those of Mr. Sennett. Neither of these authors appears to admit that the amount of grey on the under surface which conceals the cinnamon colour of the breast is due to age, nor the breadth of the striping of the upper surface is in proportion due to the wearing-away of the margins of the feathers, leaving only the mesial streak or black central part of the feather.

Hab. From Louisiana to Florida.

a, *b*. ♂ ♀ ad. sk.	Lake Borgne, Louisiana, Feb., April (*H. W. Henshaw*).	Salvin-Godman Coll. (Types of species.)
c–*g*. ♂ ad.; *h*. ♀ ad. sk.	Tarpon Springs, Florida, Jan. (*W. E. D. Scott*).	Salvin-Godman Coll.
i–*r*. ♂ ad.; *s*, *t*, *u*. ♀ ad. sk.	Tarpon Springs, Feb. (*W. E. D. S.*).	Salvin-Godman Coll.
v, *w*. ♂ ad. sk.	Tarpon Springs, March (*W. E. D. S.*).	Salvin-Godman Coll.
x, *y*, *z*. ♂ ad.; *a'*, *b'*. ♀ ad.; *c'*, *d'*. Pull. sk.	Tarpon Springs, May (*W. E. D. S.*).	Salvin-Godman Coll.
e'. ♂ pull. sk.	Tarpon Springs, June (*W. E. D. S.*).	Salvin-Godman Coll.
f'–*m'*. ♂ ad. et imm.; *n'*, *o'*, *p'*. ♀ imm. sk.	Tarpon Springs, Aug. (*W. E. D. S.*).	Salvin-Godman Coll.
q'. ♂ ad. sk.	Tarpon Springs, Oct. (*W. E. D. S.*).	Salvin-Godman Coll.
r'. ♂ ad. sk.	Tarpon Springs, Nov. (*W. E. D. S.*).	Salvin-Godman Coll.
s'–*y'*. ♂ ad.; *z'*, *a''*. ♀ ad. sk.	Tarpon Springs, Dec. (*W. E. D. S.*).	Salvin-Godman Coll.

Subsp. ε. Rallus obsoletus.

Rallus elegans (*nec Audub.*), *Newb. Pacif. R. R. Rep.* vi. p. 96 (1857: California); *Cooper & Suckley, op. cit.* xii. pt. 2, p. 246 (1860).

Rallus elegans, var. obsoletus, *Ridgw. Amer. Nat.* viii. p. 211 (1871); *Coues, B. N.-West*, p. 535 (1874).

Rallus obsoletus, *Ridgw. Bull. Nutt. Orn. Club*, v. p. 139 (1880); *id. Proc. U.S. Nat. Mus.* iii. pp. 11, 201 (1880); *Belding, Proc. U.S. Nat. Mus.* v. p. 529 (1883: W. California); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 357 (1884); *A. O. U. Check-l. N. Amer. B.* p. 140 (1886); *Cooper, Auk*, iv. p. 90 (1887: Ventura Co.); *Ridgw. Man. N. Amer. B.* p. 137 (1889).

Rallus longirostris obsoletus, *Coues, Check-l. N. Amer. B.* p. 109 (1882); *id. Key N. Amer. B.* p. 672 (1884).

Adult. Similar to *R. crepitans*, but slightly more ashy olive above and rather more rufous on the chest. Total length 14·5 inches, culmen 2·45, wing 6·5, tail 2·9, tarsus 2·1, middle toe and claw 2·5.

Hab. California north to Oregon and Washington Territory.

a.	♂ ad. sk.	California (*W. D. Bryant*: *Hensh. Coll.*).	Salvin-Godman Coll.
b.	Ad. sk.	San Francisco, California, March 28 (*A. W. Whipple*).	Salvin-Godman Coll.
c.	♂ ad.; *d, e.* ♀ imm. sk.	San Francisco, Sept., Oct. (*H. W. Henshaw*).	Salvin-Godman Coll.
f.	Ad. sk.	San Francisco Bay, Dec. (*E. W. Nelson*: *Hensh. Coll.*).	Salvin-Godman Coll.
g.	♂ ad. sk.	Redwood, California, April 16 (*H. W. Henshaw*).	Salvin-Godman Coll.

3. Rallus virginianus.

? The Soree, *Catesby, Nat. Hist. Carol.* i. pl. 70 (1731, fig. pess.).

The American Water-Rail, *Edwards, Gleanings*, ii. p. 144, pl. 279 (1760).

Le Rasle de Virginie, *Briss. Orn.* v. p. 175 (1760).

Le Rasle de Pennsylvanie, *Briss. Orn.* vi. *Suppl.* p. 138 (1760).

Rallus virginianus, *Linn. Syst. Nat.* i. p. 263 (1766); *Gm. Syst. Nat.* i. p. 716 (1788); *Wils. Amer. Orn.* viii. pl. lxii. fig. 1 (1824); *Aud. B. Amer.* pl. ccv. (c. 1826); *Jard. ed. Wils. Amer. Orn.* iii. p. 12, pl. lxii. fig. 1 (1832); *Aud. Orn. Biogr.* iii. p. 31 (1835), v. p. 573 (1839); *Bp. Comp. List B. Eur. & N. Amer.* p. 53 (1838); *Aud. B. N. Amer.* v. p. 174, pl. 311 (1842); *Giraud, B. Long Isl.* p. 208 (1844); *Gray, List Gallæ Brit. Mus.* p. 116 (1844); *id. Gen. B.* iii. p. 593 (1846); *Baird, B. N. Amer.* p. 748 (1858); *Scl. & Salv. Ibis*, 1860, p. 277 (Guatemala); *Schl. Mus. Pays-Bas*, Ralli, p. 10 (1865); *Dresser, Ibis*, 1866, p. 40 (Texas); *Coues, t. c.* p. 265 (Arizona); *id. Proc. Philad. Acad.* 1866, p. 98; *Scl. & Salv. P. Z. S.* 1868, p. 445; *Coues, Proc. Essex Inst.* v. p. 297 (1868); *Allen, Mem. Bost. Soc. N. H.* i. p. 501 (1868: Iowa); *id. Bull. Mus. C. Z.* ii. p. 307 (1871: Florida), iii. p. 172 (1872: Kansas); *Aiken, Proc. Bost. Soc. N. H.* xv. p. 210 (1872: Colorado); *Coues, Key N. Amer. B.* p. 273 (1872); *Scl. & Salv. Nomencl. Av. Neotr.* p. 139 (1873); *Snow, B. Kansas*, p. 11 (1873); *Coues, B. N.-West*, p. 536 (1874); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 311 (1874; Mazatlan); *Hensh. Rep. Zool. 100th Merid.* p. 468 (1876: Utah: Colorado); *Gundl. Orn. Cuba*, p. 298 (1876); *Belding, Proc. U.S. Nat. Mus.* i. p. 443 (1878: California); *Maynard, B. East. N. Amer.* p. 428 (1879); *Ridgw. Proc. U.S. Nat. Mus.* iii. p. 201 (1880); *Coues, Check-l. N. Amer. B.* p. 109 (1882); *Stearns, New Engl. Bird-Life*, ii. p. 283 (1883); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 363 (1884); *Coues, Key N. Amer. B.* 2nd ed.

p. 673 (1884); *Dutcher, Auk*, i. p. 178 (1884: Long Island); *Young, t. c.* p. 399 (500 miles from Ireland); *Drew, Auk*, ii. p. 18 (1885: Colorado); *Beckh. t. c.* p. 114 (Colorado); *Loomis, t. c.* p. 192 (S. Carolina); *Ayersh. t. c.* p. 287 (Dakota); *Turner, Proc. U.S. Nat. Mus.* viii. p. 248 (1885: Labrador); *A. O. U. Check-l. N. Amer. B.* p. 141 (1886); *Goss, Auk*, iii. p. 115 (1886: Kansas); *Anthony, t. c.* p. 164 (Oregon); *Scott, t. c.* p. 385 (Arizona); *Geipel, F. & S.* xxiv. p. 105 (1886); *Beckh. Auk*, iv. p. 124 (1887: Colorado); *Ridgw. Man. N. Amer. B.* p. 138 (1887); *Towns. Proc. U.S. Nat. Mus.* x. pp. 197, 234 (1887: N. California); *Beckh. t. c.* p. 637 (Bexar Co., Texas); *Scott, Auk*, vi. p. 155 (1889: Florida); *Cory, B. W. Ind.* p. 254 (1889: Cuba); *Thomps. Proc. U.S. Nat. Mus.* xiii. p. 494 (1890: Manitoba); *Brewster, Auk*, viii. p. 137 (1891: Suwanee River); *F. H. Allen, t. c.* p. 164 (Nova Scotia); *Scott. Auk*, ix. p. 212 (1892: Florida); *R. H. Lawrence, t. c.* p. 309 (1892: Washington Terr.).

Virginian Rail, *Penn. Arct. Zool.* ii. p. 490 (1785); *Lath. Gen. Syn.* iii. pt. 1, p. 228 (1785).

Rallus aquaticus, var. β, *Lath. Ind. Orn.* ii. p. 755 (1790).

Rallus limicola, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 558 (1819).

Aramus virginianus, *Gray, Hand-l. B.* iii. p. 59, no. 10419 (1871).

Adult male in breeding-plumage. General colour above brown, all the feathers broadly centred with black, producing a strongly streaked appearance; lower back, rump, and upper tail-coverts somewhat more uniform brown; scapulars like the back, but of a more reddish tinge; wing-coverts uniform dull brick-red; bastard-wing, primary-coverts, and quills uniform dusky brown; the inner secondaries exactly like the scapulars; tail-feathers brown, with lighter brown edges; crown of head uniform blackish brown, with slight remains of lighter brown margins to the feathers; eyebrow, sides of face, and ear-coverts ashy grey, a little more blackish on the lores, which are surmounted by a streak of pale vinous; eyelid and chin white; throat and under surface of body pale vinous, becoming lighter and more isabelline on the abdomen and thighs, deepening on the sides of the body; the sides of the neck and sides of the breast brown, streaked with black like the back; the flanks and sides of vent black, barred with white; the sides of the lower back uniform brown; under tail-coverts black, barred with white and tipped with sandy margins like some of the lower flank-feathers; lateral under tail-coverts white, with longitudinal black centres; under wing-coverts and axillaries dusky brown, the former tipped and the latter barred as well as tipped with white; "bill dark brown, the lower mandible and edges of upper one yellowish brown; feet yellowish brown tinged with olive, claws more dusky; iris bright red" (*J. J. Audubon*). Total length 8·3 inches, culmen 1·5, wing 4·15, tail 1·9, tarsus 1·35, middle toe and claw 1·6.

Adult female in breeding-plumage. Similar to the male in colour. Total length 8 inches, culmen 1·5, wing 3·9, tail 1·35, tarsus 1·25, middle toe and claw 1·55.

Adult in winter plumage. Similar to the summer plumage; but the brown colour of the upper surface is rather lighter, by reason of the broader brown edges to the feathers.

Young in first plumage. For the most part black interspersed with the feathers of the adult plumage, but with a great deal of white on the throat and breast, and generally distinguishable by the shorter bill.

Nestling. Entirely black all over.

Hab. North America generally, wintering in Central America, as far as Guatemala.

a, b. Ad. st.	North America.	J. J. Audubon, Esq. [P.].
c, d. ♂ ad. sk.	Waldron Island, British Columbia, June 25.	Dr. Lyall [P.].
e. Ad. sk.	Waukegan, Illinois (*W. M. Reid*; Sm. no. 18814).	Salvin-Godman Coll.
f. Ad. sk.	Rockford, Illinois (*Blackman*; Sm. no. 25980).	Salvin-Godman Coll.
g. ♀ ad. sk.	Cambridge, Mass., May 19 (*H. W. Henshaw*).	Salvin-Godman Coll.
h. Pull. sk.	Concord, Mass. (*W. Brewster*: *Hensh. Coll.*).	Salvin-Godman Coll.
i. ♀ ad. sk.	New Haven, Connecticut, June 7 (*A. J. Dayan*: *Hensh. Coll.*).	Salvin-Godman Coll.
k, l. ♂ ♀ ad. sk.	Lake Borgne, Louisiania, Mar., April (*H. W. Henshaw*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Brownsville, Texas, April 4 (*F. B. Armstrong*).	Salvin-Godman Coll.
n, o, p. ♂ ad.; *q.* ♀ ad. sk.	San Luis Obispo, California, Oct. (*H. W. Henshaw*).	Salvin-Godman Coll.
r. Ad. sk.	Near the City of Mexico.	Salvin-Godman Coll.
s. Ad. sk.	Tizimin, Northern Yucatan, June 23 (*G. F. Gaumer*).	Salvin-Godman Coll.
t, u. Ad. et juv. sk.	Dueñas, Guatemala, Sept., Oct. (*O. Salvin*).	Salvin-Godman Coll.
v. ♀ ad. sk.	Ciudad Vieja, Guatemala, Sept. (*O. Salvin*).	Salvin-Godman Coll.

4. **Rallus æquatorialis.** (Plate II. fig. 1.)

Rallus virginianus (*nec L.*), *Scl. P. Z. S.* 1877, p. 523, note (Lima); *Berl. & Tacz. P. Z. S.* 1884, p. 313 (W. Ecuador), 1885, p. 112 (Riobamba); *Tacz. Orn. Pérou*, iii. p. 314 (1886).

Adult. Similar to *R. virginianus*, but having the lateral under tail-coverts pure white, without black centres or black on the inner web. General colour also paler and the thighs externally paler grey: "upper mandible brown; lower one reddish brown; feet dirty flesh-colour; iris reddish brown" (*J. Stolzmann*). Total length 7·5 inches, culmen 1·55, wing 4, tail 1·65, tarsus 1·25, middle toe and claw 1·5.

Hab. Colombia to Peru.

a. Juv. sk.	Bogota.	Dr. J. E. Gray.
b, c. Ad. et juv. sk.	Ecuador.	Salvin-Godman Coll.

d. Ad. sk.	San Lucas, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
e. Ad. sk.	Intaj, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
f. Ad. sk.	Lima, Peru (*W. Nation*).	Salvin-Godman Coll.

5. Rallus semiplumbeus. (Plate III.)

Rallus semiplumbeus, *Scl. P. Z. S.* 1856, p. 31; *Schl. Mus. Pays-Bas*, Ralli, p. 11 (1865); *Scl. & Salv. P. Z. S.* 1868, p. 445; *iid. Nomencl. Av. Neotr.* p. 139 (1873); *Pelz. Ibis*, 1875, p. 332 (between Rio Negro and Orinoco); *Taczan. Orn. Pérou*, iii. p. 314 (1884).

Aramus semiplumbeus, *Gray, Hand-l. B.* iii. p. 59, no. 10421 (1869).

Limnopardalis semiplumbeus, *Heine & Reichen. Nomencl. Mus. Hein.* p. 321 (1890).

Adult. Similar to *R. virginianus* on the upper surface, and having the same chestnut wings, but differing in the colour of the under surface, which is slaty grey like the sides of the face; lower flanks and feathers of the vent black, with sandy tips; the long under tail-coverts white, with subterminal spots of black, some of the feathers black along the inner web; sides of the upper breast uniform olive-brown. Total length 6·5 inches, culmen 1·55, wing 4·3, tail 1·75, tarsus 1·5, middle toe and claw 1·8.

Hab. Colombia.

a, b, c. Ad. sk.	Bogota.	Salvin-Godman Coll.
d. Ad. sk.	Bogota.	P. L. Sclater, Esq. [P.]. (Type of species.)

6. Rallus antarcticus.

Rallus antarcticus, *King, Zool. Journ.* iv. p. 95 (1828); *Scl. P. Z. S.* 1867, p. 333 (Chili); *id. & Salv. P. Z. S.* 1868, p. 445; *iid. Nomencl. Av. Neotr.* p. 139 (1873); *iid. P. Z. S.* 1878, p. 437 (Sandy Point); *iid. Rep. Voy. 'Challenger,'* ii. *Birds*, p. 108 (1880); *Barrows, Auk*, i. p. 276 (1884); *Withington, Ibis*, 1888, p. 471 (Lomas de Zamora); *Scl. & Huds. Argent. Orn.* ii. p. 148 (1889); *Oust. Miss. Sci. Cap Horn, Ois.* p. 133 (1891: Punta Arenas).

Rallus rufopennis, *Gray, List Grallæ in Brit. Mus.* p. 116 (1844: descr. nulla).

Ortygometra antarctica, *Gray, Gen. B.* iii. p. 594 (1846).

Rallus uliginosus, *Filippi, Arch. Nat.* 1858, p. 83 (Santiago).

Aramus antarcticus, *Gray, Hand-l. B.* iii. p. 59, no. 10420 (1871).

Adult. Similar to *R. virginianus* on the upper surface, but much paler, especially on the scapulars and inner secondaries, which have broad sandy-brown margins; the sides of the face and under surface of body grey; the flanks blackish barred with white; the feathers of the vent black with sandy margins; the long under tail-coverts entirely white; under wing-coverts white with dusky bases; axillaries blackish, distinctly barred with white; sides of breast brown, streaked with black like the sides of the neck: "upper

mandible dark red, lower one bright red; feet and toes dark purple; iris reddish brown" (*F. Withington*). Total length 7·5 inches, culmen 1·2, wing 3·6, tail 1·7, tarsus 1·1, middle toe and claw 1·35.

Hab. Argentina to Central Chili and Patagonia.

a. ♀ ad. sk.	Lomas de Zamora, Buenos Aires, June 19 (*F. Withington*).	Sclater Coll.
b. Ad. sk.	Chili.	C. Bridges [C.]. (Type of *R. rufopennis*.)
c. Ad. sk.	Chili (*Dr. Leybold*).	Salvin-Godman Coll.
d, *e*, *f*. Ad. et imm. sk.	Central Chili.	Berkeley James Coll.
g. Ad. sk.	Prov. of Santiago (*Philippi*).	Salvin-Godman Coll.
h. ♀ imm. sk.	Sandy Point, Straits of Magellan.	Voy. H.M.S. 'Challenger.'

7. Rallus aquaticus.

The Water Rail, *Albin, Nat. Hist. B.* i. p. 73, pl. 77 (1738); *Lath. Gen. Syn.* iii. pt. 1, p. 227 (1785); *Yarrell, Brit. B.* iii. p. 24 (1843).

Le Rasle d'eau, *Briss. Orn.* v. p. 151, pl. 12. fig. 2 (1760); *Daubent. Pl. Enl.* ix. pl. 749.

Rallus aquaticus, *Linn. Syst. Nat.* i. p. 262 (1766); *Gm. Syst. Nat.* i. p. 712 (1788); *Pall. Zoogr. Rosso-Asiat.* ii. p. 153 (1811); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 552 (1819); *Temm. Man. d'Orn.* ii. p. 683 (1820); *Roux, Orn. Prov.* pl. 329 (1825); *Werner, Atlas*, Gralles, pl. 33 (1827); *Brehm, Vög. Deutschl.* p. 691 (1831); *Ménétr. Cat. raiss. Cauc.* p. 52 (1832); *Gould, B. Eur.* iv. pl. 339 (1837); *Naum. Vög. Deutschl.* ix. Taf. 235 (1838); *Crespon, Orn. Gard*, p. 445 (1840); *Keys. u. Blas. Wirb. Eur.* p. lxviii (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 274 (1840); *Selys-Longch. Faune Belge*, p. 118 (1842); *Schl. Rev. Crit.* p. civ (1844); *Gray, List Gralle Brit. Mus.* p. 115 (1844); *id. Gen. B.* iii. p. 593 (1846); *Hewits. Eggs Brit. B.* ii. p. 322, pl. xc. fig. 2 (1846); *Thomps. B. Irel.* ii. p. 322 (1850); *Reichenb. Handb., Fulicariæ*, Taf. cxv. figs. 1143–1145 (1851); *Macgill. Hist. Brit. B.* iv. p. 521 (1852); *Kjærb. Orn. Dan.* pl. xxxviii. fig. 2, Suppl. pl. xviii. fig. 2 (1852); *Schl. Vog. Nederl.* pl. 257 (1854); *Heugl. Syst. Uebers.* p. 64 (1856); *Jaub. et Barth.-Laponm. Rich. Orn.* p. 486 (1859); *Salvin, Ibis*, 1859, p. 60 (E. Atlas); *Linderm. Vög. Griechenl.* p. 129 (1860); *Tristr. Ibis*, 1860, p. 80 (Laghouat); *Powys, t. c.* p. 349 (Epirus); *Schl. Dier. Nederl. Vog.* pl. 26. fig. 9 (1861); *Sundev. Sv. Fogl.* pl. 45. fig. 1 (1863); *Gould, B. Gt. Brit.* iv. pl. 86 (1863); *Wright, Ibis*, 1864, p. 149 (Malta); *Sperling, t. c.* p. 288 (Mediterraneau); *Newton in Baring-Gould's Iceland*, p. 410 (1863); *Gray, List Brit. B.* p. 177 (1863); *Gigl. Ibis*, 1865, p. 62 (1863); *More, t. c.* p. 440; *Schl. Mus. Pays-Bas*, Ralli, p. 10 (1865); *Degl. et Gerbe, Orn. Eur.* ii. p. 251 (1867); *Baird, Ibis*, 1867, p. 282 (Iceland); *Loche, Expl. Sci. Algér., Ois.* ii. p. 336 (1867); *Tristr. Ibis*, 1868. p. 327 (Palestine); *Borggr. Vogelf. Norddeutschl.* p. 106 (1869); *Doderl. Avif. Sicil.* p. 198 (1869); *Fritsch. Vög. Eur.* tab. 35. fig. 8 (1870); *Salvad. Faun. Ital., Uce.* p. 229 (1871); *Saunders, Ibis*, 1871,

p. 225 (S. Spain); *Fritsch, J. f. O.* 1871, p. 380 (Bohemia); *R. Gray, B. W. Scotl.* p. 334 (1871); *Harting, Handb. Brit. B.* p. 57 (1872); *Shelley, B. Egypt*, p. 273 (1872); *Heuglin, Orn. N.O.-Afr.* ii. pt. 1, p. 1246 (1873: Nile Delta; Adowa); *Severtz. Turkest. Jevotn.* p. 69 (1873); *Brooke, Ibis*, 1873, p. 336 (Sardinia); *Saxby, B. Shetl.* p. 222 (1874); *Irby, B. Gibr.* p. 144 (1875); *Cordeaux, Ibis*, 1875, p. 186 (Heligoland); *Danf. & Harvie-Brown t. c.* p. 418 (Transylvania); *Fallon, Ois. Belg.* p. 181 (1875); *Dresser, Ibis*, 1876, p. 412; *Blanf. East. Persia*, ii. p. 288 (1876); *Wharton, Ibis*, 1876, p. 27 (Corsica); *Scully, Str. F.* iv. p. 193 (1876: Yarkand); *Tacz. Bull. Soc. Zool. France*, ii. p. 160 (1877: Poland); *Dresser, B. Eur.* vii. p. 257, pl. 495 (1878); *Boyd. B. Cauc.* p. 145 (1879); *Hume & Marsh. Game B. Ind.* ii. p. 261 (1879); *Hume, Str. F.* viii. p. 113 (1879); *Collin, Skand. Fugle*, Taf. xxxviii. fig. 2, Suppl. pl. xviii. fig. 2 (1879); *Bidd. Ibis*, 1881, p. 98 (Gilgit); *Scully, t. c.* p. 591; *Seeb. Ibis*, 1882, p. 226 (Astrachan); *Marsch. & Pelz. Orn. Vindob.* p. 117 (1882); *B. O. U. List Brit. B.* p. 146 (1883); *Seeb. Ibis*, 1883, p. 27 (Caucasus); *Irby, t. c.* p. 185 (Santander); *Booth, Rough Notes*, vol. ii. (1883); *Saunders, ed. Yarrell, Br. B.* iii. p. 159 (1883); *Seeb. Hist. Br. B.* ii. p. 552, pl. 23 (1884); *Tristr. Faun. & Flor. Palest.* p. 125 (1884); *Chapm. Ibis*, 1884, p. 92 (Andalucia); *Eagle Clark, t. c.* p. 147 (Sclavonia); *Saunders, t. c.* p. 388 (Pyrenees); *Bogd. Consp. Av. Imp. Ross.* p. 49 (1884); *Radde, Orn. Cauc.* p. 384 (1884); *Whitehead, Ibis*, 1885, p. 44 (Corsica); *Büchner, J. f. O.* 1885, p. 207 (St. Petersburg); *Zarudn. Bull. Soc. Mosc.* 1885, p. 66; *Gigl. Icon. Arif. Ital.* pl. cccix. (1886); *id. Arif. Ital.* p. 348 (1886); *Olphe-Gall. Contr. Faun. Orn. Eur. occid.* fasc. xvi. p. 6 (1887); *Salvad. Elench. Uce. Ital.* p. 233 (1887); *Backh. Ibis*, 1887, p. 73 (E. Pyrenees); *Tait, t. c.* p. 381 (Portugal); *Hartert, J. f. O.* 1887, p. 265 (Niederrhein); *Scully, J. A. S. Beng.* lvi. p. 87 (1887); *Sharpe, Trans. Linn. Soc.* (2) *Zool.* v. pt. 3, p. 89 (1889); *Gigl. Arif. Ital.* 1st Resoc. p. 538 (1889); *Lilford, Ibis*, 1889, p. 336 (Cyprus); *Reichen. Syst. Verz. Vög. Deutschl.* p. 44 (1889); *Madarász, Aust. Ungar. Vogelf.* p. 112 (1891); *Reiser, Vög. Mus. Sarajevo*, p. 116 (1891); *Bird, Zool.* 1890, pp. 458–460 (Norfolk); *Frivaldsky, Av. Hung.* p. 151 (1891); *Sharpe, Rep. 2nd Yark. Miss.* Aves, p. 146 (1891); *Gätke, Vogelw. Helgoland*, p. 529 (1891); *Lilford, Col. Fig. Brit. B.* part xx. (1891); *Hartert, Ibis*, 1892, p. 513 (E. Prussia).

Le Râle d'eau, *Buff. Hist. Nat. Ois.* viii. p. 154, pl. 13 (1781).

Scolopax obscura, *S. G. Gmel. Reise Russl.* iii. p. 90, pl. 17 (1784).

Rallus sericeus, *Leach, Syst. Cat. Mamm. etc. Brit. Mus.* p. 33 (1816).

Rallus germanicus, *Brehm, Vög. Deutschl.* p. 690 (1831).

Rallus minor, *Brehm, Vogelf.* p. 328 (1855).

Rallus fusciateralis, *Brehm, Vogelf.* p. 328 (1855).

Rallus indicus, pt., *Jerd. B. Ind.* iii. p. 726 (1864).

Aramus aquaticus, *Gray, Hand-l. B.* iii. p. 59, no. 10408 (1871).

Adult male in summer plumage. General colour above olive-brown, broadly streaked with black, the feathers being all longitudinally centred with black, the rump more uniform olive-brown: the upper tail-coverts centred with black like the back; wing-coverts and inner secondaries like the back; the outer coverts, bastard-wing, primary-coverts, and wings blackish brown, quite uniform, or slightly

washed with olive externally; the first primary pale brown along the outer web; tail-feathers blackish, externally olive-brown; crown of head and hind neck like the back, more minutely streaked with black; a broad eyebrow, sides of face, and under surface of body dark slaty grey, with a slight dusky shade on the lores and region of the eye; throat and fore neck rather lighter grey than the breast; sides of upper breast olive-brown centred with black like the back; flanks and sides of vent black, transversely barred with white; lower abdomen and vent isabelline buff; under tail-coverts black, barred with white and tipped with isabelline buff, the lateral under tail-coverts white; under wing-coverts and axillaries black, barred and edged with white; quills ashy blackish below. Total length 11 inches, culmen 1·7, wing 4·9, tail 2·3, tarsus 1·5.

Adult female. Similar to the male but rather smaller: "bill above nostril very dark brown, below nostril and lower mandible orange-red; feet light fleshy brown; iris orange-red" (*W. R. Ogilvie Grant, MSS.*) Total length 9·5 inches, culmen 1·5, wing 4·2, tail 1·9, tarsus 1·4.

Adult in winter plumage. Similar to the summer plumage, but decidedly browner; the underparts freckled with light brown edges to the feathers, each margin preceded by a dusky subterminal line; the lower flanks and thighs strongly washed with fulvous brown; the outer upper wing-coverts with zigzag white bars; throat whitish.

Young similar to the winter plumage of the adults, but with a whiter throat, and the whole of the centre of the breast and abdomen whitish, slightly washed with brown and with obscure dusky bars; outer wing-coverts with narrow white bars.

Nestling black.

Hab. Europe generally, except the extreme northern parts, eastwards to Central Asia, wintering in N.W. India and Northern Africa.

a. Ad. sk.	Taken at Sea, Lat. 46° 48′ N., Long. 11° 30′ W., Oct. 24 (*W. Osburn*).	Salvin-Godman Coll.
b, c. ♂ ♀ ad. sk.	Great Britain.	Hume Coll.
d. Imm.; *e, f.* Pull. sk.	Great Britain.	Gould Coll.
g, h. Ad. sk.	Castle Caulfield, Co. Tyrone, Ireland, Jan., Oct.	J. Y. W. Burges, Esq. [P.].
i, k, l. Pull. st.	Orkney Islands.	Mr. J. Baker.
m. ♂ ad.; *n.* Imm. sk.	Island of Tiree, Dec. 14.	Col. Irby [P.].
o. Ad. sk.	St. Andrews, Nov. (*R. G. W. R.*).	Tweeddale Coll.
p. Ad. sk.	Whitehill, Midlothian, August (*R. G. W. R.*).	Tweeddale Coll.
q. Ad. sk.	Spurn Head, Lincolnshire, August.	Theodore Fisher, Esq. [P.].
r, s. Ad. st.	Cambridgeshire.	Mr. J. Baker [C.].
t, u, v. Ad. sk.	Wicken Fen, Cambridgeshire.	Salvin-Godman Coll.
w. ♂ ad. sk.	Didlington, Norfolk, Jan.	Gould Coll.

x. Ad. sk.	Wangford, Suffolk, Dec. 28 (*F. Mayhew*).	Seebohm Coll.
y. ♀ ad. sk.	Northamptonshire, Dec. 29.	Colonel Irby [P.].
z. ♂ ad. sk.	Oxford, Dec. 17.	Sharpe Coll.
a'. Ad. st.	Cookham, Berks.	Mr. W. Briggs [P.].
b', *c'*. ♂ ad. sk.	Cookham, March, Dec. (*W. Briggs*).	Tweeddale Coll.
d'. Ad. sk.	Farnham, Surrey, Nov. 9.	Mr. A. Copper [P.].
e'. ♀ ad. sk.	Dungeness, Kent, Nov. 14.	Colonel Irby [P.].
f'. Ad. st.	Near Shoreham, Sussex (*Pratt*).	Harting Coll.
g'. ♂ ad. sk.	Harting, Sussex, Nov. 23.	Rev. Prebendary Gordon [P.].
h'. Ad. st.	Avington, Hants.	Sharpe Coll.
i'. ♀ ad. sk.	Devonshire.	Montagu Coll.
k'. Ad. st.	Torquay, Devonshire.	C. Conyngham, Esq. [P.].
l', *m'*. ♂ ♀ ad. sk.	Monmouthshire, Dec. 4.	Rev. A. Morgan [P.].
n'. Ad. st.	Monmouthshire, Dec. 4.	Rev. A. Morgan [P.].
o', *p'*. ♂ ♀ ad. sk.	St. Bride's, South Wales, April, Nov.	Hon. W. Edwardes [P.].
q'. ♂ ad. sk.	Heligoland, Nov. (*L. Gätke*).	Seebohm Coll.
r'. ♂ ad. sk.	Coria, Spain.	Howard Saunders, Esq. [P.].
s'. Ad. sk.	Morocco.	Tweeddale Coll.
t'. ♂ ad sk.	Florence, Italy.	Seebohm Coll.
u'. Juv. sk.	Fogaras, Hungary, Oct. 20 (*E. Czynk*).	Hungarian Nat. Museum [P.].
v'. Ad. sk.	Albania (*H. Barclay*).	Tweeddale Coll.
w'. ♂ ad. sk.	Buyukdere, Turkey, Jan. 21 (*T. Robson*).	Tweeddale Coll.
x'. ♂ ad. sk.	Guiksu, Turkey, Nov. 17 (*T. Robson*).	Tweeddale Coll.
y'. ♀ ad. sk.	Phandos, Rhodes, Dec. 20 (*C. G. Danford*).	Seebohm Coll.
z'. ♂ ad. sk.	Fayoom, Egypt (*G. E. S.*).	Shelley Coll.
a'', *b''*, *c''*. Ad. sk.	Damietta (*Filipponi*).	Shelley Coll.
d''. ♂ ad. sk.	Foot of Mount Carmel, Palestine.	Canon Tristram [C.].
e''. Ad. sk.	Midian.	Sir R. Burton [P.].
f''. Imm. sk.	Marshes of Babylonia (*Commander Jones*).	India Museum.
g''. ♀ ad. sk.	Shiraz (*Sir O. St. John*).	India Museum.
h'', *i''*. ♂ ♀ ad. sk.	Yarkand, July 18, 20 (*J. Scully*).	Hume Coll.
k'', *l''*. Ad. sk.	Yarkand, March (*J. Biddulph*).	Hume Coll.
m''. ♂ imm. sk.	Lundi, Northern Afghanistan, Oct. 2.	Dr. Aitchison [C.].
n''. ♂ ad. sk.	Bala Murghab, Jan. 10.	Dr. Aitchison [C.].
o''. Ad. sk.	Sindh (*Dr. H. Gould*).	India Museum.
p''. Ad. sk.	Kulu (*Major Hay*).	Gould Coll.
q''. Ad. sk.	Dhoon.	Hume Coll.
r''. ♂ ad. sk.	Dehra Dhoon, Jan. 20 (*G. King*).	Hume Coll.
s''. Ad. sk.	Nepal.	Hodgson Coll.
t''. Skeleton.	England.	Zoological Society.
u''. Skeleton.	England.	Salvin-Godman Coll.

v''. Skeleton.	England.	Purchased.
w''. Skull.	England.	Yarrell Coll.
x''. Skull.	England.	
y'', *z''*, a^3. Skulls.	S. Germany.	Dr. Günther [P.].
b^3. Sternum.	England.	T. Ingall, Esq. [P.].

8. Rallus indicus.

Rallus indicus, *Blyth, J. A. S. Beng.* xviii. p. 820 (1849); *id. Cat. B. Mus. As. Soc.* p. 286 (1849: Calcutta); *id. J. A. S. Beng.* xxviii. p. 218 (1859); *Jerd. B. Ind.* iii. p. 726 (1864, pt.); *Blyth, Ibis*, 1867, p. 172, 1870, p. 176, 1873, p. 80; *Tacz. J. f. O.* 1873, p. 106 (Dauuria); *Legge, Ibis*, 1874, p. 31 (Colombo); *Swinh. t. c.* p. 163 (Hakodadi); *Hume, Str. F.* iii. p. 416 (1875); *Blyth, B. Burm.* p. 162 (1875); *Tacz. Bull. Soc. Zool. France*, i. p. 259 (1876); *Prjev. in Rowley's Orn. Misc.* iii. p. 93 (1878: Tsaidam, Lake Hanka, Hoangho Valley); *David & Oust. Ois. Chine*, p. 489 (1877); *Blakist. & Pryer, Ibis*, 1878, p. 225; *Hume & Marsh. Game B. Ind.* iii. p. 257, pl. 44 (1879); *Hume, Str. F.* vii. p. 489 (1878: Calcutta), 1879, p. 113; *Legge, B. Ceylon*, p. 778 (1879); *Scully, Ibis*, 1881, p. 591; *Blakist. Chrys.* 1882, p. 523, 1883, p. 28; *id. Amended List B. Japan*, p. 13 (1884); *Jouy, Proc. U.S. Nat. Mus.* vi. p. 317 (1883); *Oates, B. Brit. Burm.* ii. p. 342 (1883: Arakan); *Swinh. & Barnes, Ibis*, 1885, p. 135 (Mhow district); *Stejneger, Proc. U.S. Nat. Mus.* ix. p. 402 (1886); *Olphe-Galliard, Contr. Faun. Orn. Eur. occid.* fasc. xvi. p. 6, note (1887); *Reid, Str. F.* x. p. 453 (1887: Lucknow); *id. Cat. B. Lucknow Mus.* p. 256 (1890: Calcutta); *Seeb. B. Japan. Emp.* p. 359 (1890); *Styan, Ibis*, 1891, pp. 329, 500 (Yangtze); *W. L. Sclater, Ibis*, 1892, p. 87 (type).

Rallus aquaticus (*nec L.*), *Temm. & Schl. Faun. Japon., Aves*, p. 122 (1850); *Swinh. P. Z. S.* 1863, p. 322 (Tientsin); *Radde, Reis. Sibir., Vög.* p. 311 (1863: Ussuri); *Whitely, Ibis*, 1867, p. 206 (Hakodadi); *Finsch, Verh. z.-b. Ges. Wien*, xxii. p. 267 (1872: Yokohama); *Martens, Preuss. Exped. Ost-Asien, Zool. Th.* i. p. 371 (1876: Yokohama).

Rallus aquaticus, β. japonicus, *Bp. C. R.* xliii. p. 598 (1856).

Rallus aquaticus, *c.* indicus, *Bp. t. c.* p. 598 (1856).

Rallus aquaticus, pt., *Schl. Mus. Pays-Bas*, Ralli, p. 10 (1865).

Rallus aquaticus, var., *Dyb. & Parr. J. f. O.* 1868, p. 338 (Dauria).

Rallus japonicus, *Jerd. B. Ind.* ii. p. 727, note (1863); *Dresser, B. Eur.* vii. p. 261 (1878).

Rallus aquaticus indicus, *Seeb. B. Japan. Emp.* p. 359 (1890).

Adult male. Similar to *R. aquaticus* but darker and more ochreous brown, and distinguished by its whitish eyelid and a distinct streak of ochreous brown spotted with blackish running through the eye and extending along the ear-coverts. Total length 9·8 inches, culmen 1·6, wing 5, tail 2·1, tarsus 1·45.

Adult female. Similar to the male, but smaller, and having white bands on the outer wing-coverts. Total length 9 inches, culmen 1·45, wing 4·8, tail 1·85, tarsus 1·25.

Mr. Hume gives the following notes, made by himself, on the colouring of the soft parts in a series:—"The irides of the adult are red, in younger birds they are pale yellowish brown, brownish

orange, brownish red; the legs and feet dull dingy pink (cold weather), sometimes only pinkish dusky, or brownish fleshy, and generally duskier and purpler on joints and at back of legs; sometimes they are only pale dove-brown, and sometimes yellowish fleshy with a brownish tinge. In the bill the basal two-thirds of the lower mandible, a corresponding stripe on the upper mandible along the commissure and the gape, are vermilion in adults, reddish yellow or orange-red in younger birds; the rest of the lower mandible brownish; the rest of the upper mandible deep brown, at times paling to the tip."

Hab. Eastern Siberia and Japan to China, wintering in Southern China, probably the Burmese countries, and certainly in Oudh and the Calcutta district, south to Ceylon.

a. Ad. sk.	Japan.	Old Collection.
b. ♀ ad.; *c.* Juv. sk.	Hakodadi, May, Sept. (*H. Whitely*).	Tweeddale Coll.
d, *e*, *f.* Ad. sk.	Nagasaki.	F. Ringer, Esq. [P.].
g–p. Ad. et juv. sk.	Yokohama (*H. Pryer*).	Seebohm Coll.
q. ♂ ad. sk.	Ningpo, China, Nov. 20 (*W. R. Davidson*).	Seebohm Coll.
r. Ad. sk.	Canton (*Capt. Tuckett*).	Tweeddale Coll.
s. Ad. sk.	Tipperah.	Hume Coll.
t–y. Ad. et juv. sk.	Calcutta, Nov. to Jan.	Hume Coll.
z–d'. ♂ ad.; *e'–i'.* ♀ ad. sk.	Calcutta, Dec., Jan.	Hume Coll.
k'. Ad. sk.	Calcutta (*E. Blyth*).	India Museum.

9. Rallus cærulescens.

Blue-necked Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 234 (1785).

Rallus cærulescens, *Gm. Syst. Nat.* i. p. 716 (1788); *Lath. Ind. Orn.* ii. p. 758 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 551 (1819); *Gray, Gen. B.* iii. p. 593 (1846); *Reichenb. Handb., Fulicariæ, Novit.* Taf. xliii. figs. 2473–74 (1851); *Bp. C. R.* xliii. p. 598 (1856); *Grill, Zool. Anteckn.* pp. 11, 54 (1859: Knysna; Karroo); *Kirk, Ibis*, 1864, p. 335 (Upper Shiré); *Schl. Mus. Pays-Bas*, Ralli, p. 9 (1865); *Layard, B. S. Afr.* p. 337 (1867); *Gurney, Ibis*, 1868, p. 471; *Finsch & Hartl. Vög. Ostafr.* p. 777 (1870); *Gurney in Anderss. B. Dam. Ld.* p. 316 (1872); *Ayres, Ibis*, 1873, p. 283, 1874, p. 107 (Transvaal); *Buckley, Ibis*, 1876, p. 133 (Pietermaritzburg); *Ayres, Ibis*, 1877, p. 351; *Reichen. Mitth. Afrik. Gesellsch.* i. p. i. (1880: Malange); *Bocage, Orn. Angola*, p. 478 (1881: Duque de Braganza: Caconda); *Holub & Von Pelz. Beitr. Orn. Südafr.* p. 295 (1882: Pantamatenka River); *Böhm, J. f. O.* 1882, p. 186 (Kakoma); *Sharpe, ed. Layard, B. S. Afr.* p. 610 (1884); *Böhm, J. f. O.* 1885, p. 52 (Gonda).

Rallus caffer, *Forst. Icon. ined.* fig. 129; *id. Descr. Anim.* p. 50 (1844).

Rallus aquaticus (*nec L.*), *Gurney, Ibis*, 1859, p. 249 (Natal), 1868, p. 261.

Aramus cærulescens, *Gray, Hand-l. B.* iii. p. 59, no. 10409 (1871).
Rallus cæruleus (*lapsu*), *Barratt, Ibis*, 1876, p. 213 (Mooi River; Lydenburg).

Adult. General colour above dark chocolate-brown; wing-coverts like the back; the bastard-wing, primary-coverts, and quills blackish; secondaries externally chocolate-brown; tail-feathers black; crown of head blackish, darker than the back; eyebrows, lores, sides of face, and under surface of body dark slaty grey; the throat hoary white in the centre; the sides of the breast, flanks, and sides of rump black barred with white; central under tail-coverts also black, barred with white, the lateral ones pure white; axillaries and under wing-coverts black, barred with white like the sides of the body: "bill blood-red, dusky on culmen; tarsi and feet dull brownish red, tinged with dusky; iris blood-red" (*T. Ayres*). Total length 9·5 inches, culmen 1·8, wing 4·35, tail 1·6, tarsus 1·6.

Adult female. Similar to the male in colour: "bill scarlet, dusky on the culmen; tarsi dull brick-red tinged with dusky; iris reddish hazel" (*T. Ayres*).

Young. Differs from the adult by being everywhere browner: the throat and centre of breast and abdomen white; fore neck and chest uniform brown with an ashy shade; flanks and sides of body brown barred with fulvous brown: "bill dusky, nearly black, the commissure, tip, and nostrils dull red; tarsi and feet dull red-brown, dusky on the heel; iris dusky tawny" (*T. Ayres*).

Hab. South Africa, northward to Angola on the west and the Zambesi on the east, extending as high as Lake Tanganyika.

a. Ad. st.	Cape.	Purchased.
b. ♂ ad. sk.	Natal (*T. Ayres*).	Tweeddale Coll.
c. Ad. sk.	Natal.	J. H. Gurney, Esq. [P.].
d, *e.* Ad. sk.	Durban (*Gordge*).	Shelley Coll.
f. ♂ ad. sk.	Transvaal (*T. Ayres*).	Sharpe Coll.
g. ♂ juv.; *h*, *i.* ♀ ad. sk.	Potchefstroom, Sept., Nov. (*T. Ayres*).	Gurney Coll.
k. Ad. sk.	Potchefstroom, Nov.	F. A. Barratt, Esq. [C.].
l. Ad. sk.	Vaal River, Nov.	F. A. Barratt, Esq. [C.].

10. Rallus madagascariensis.

? Rallus madagascariensis, *Desj. P. Z. S.* 1831, p. 45 (descr. nulla).
Rallus madagascariensis (*certè*), *Verr. S. Afr. Q. Journ.* ii. p. 80 (1833); *Gray, Gen. B.* iii. p. 593 (1846); *Schl. Mus. Pays-Bas*, Ralli, p. 10 (1865); *Grandid. Rev. et Mag. de Zool.* 1868, p. 4; *Milne-Edwards & Grandid. Hist. Nat. Madag., Ois.* p. 568, pl. 230 B. fig. 1, pl. 231 (1879–82); *Sibree, Ibis*, 1892, p. 114.
Rallus poliocephalus, *Gray, List Grallæ Brit. Mus.* p. 116 (1844).
Biensis typus, *Pucher. Rev. Zool.* 1845, p. 278; *Des Murs, Iconogr. Orn.* pl. 24 (1846).
Biensis madagascariensis, *Reichenb. Handb., Fulicariæ*, Taf. ccevi. fig. 2476 (1851); *Bp. C. R.* xliii. p. 599 (1856); *Hartl. Faun.*

Madag. p. 79 (1861); *Roch & E. Newt. Ibis*, 1863, p. 173; *A. Newt. P. Z. S.* 1865, p. 837; *Sharpe, P. Z. S.* 1870, p. 400; *Hartl. Vog. Madag.* p. 340 (1877); *E. Bartlett, P. Z. S.* 1879, p. 772

Eulabeornis madagascariensis, *Gray, Hand-l. B.* iii. p. 57, no. 10374 (1871).

Eulabeornis bernieri, *Gray, t. c.* p. 56, no. 10373 (1871).

Adult. General colour above olive-brown, the feathers broadly centred with black; scapulars like the back; lower back, rump, and upper tail-coverts rather more dusky olive than the back, and streaked with black like the latter: wing-coverts olive like the back, with dusky blackish centres to the feathers; greater coverts, bastard-wing, primary-coverts, and quills dusky brown, externally olive, the inner secondaries centred with black like the scapulars: tail-feathers blackish, edged with olive; crown of head and hind neck like the back, but slightly washed with vinaceous, the forehead and sides of face, as well as the eyebrow, dark slaty grey: ear-coverts, sides of neck, and under surface of body dull vinaceous, more or less distinctly streaked with black centres to the feathers, becoming larger and more pronounced on the sides of the breast; the throat a little more ashy grey; abdomen, vent, and lower flanks dusky olive-brown, narrowly barred with white: thighs dusky olive-brown; lateral under tail-coverts white; under wing-coverts and axillaries olive-brown, with slight indications of white fringes; quills below bronzy brown, lighter along the inner edge: "bill rosy, the upper mandible black along the ridge; feet greyish brown: iris bright scarlet" (*A. Grandidier*). Total length 12 inches, culmen 2·5, wing 4·4, tail 1·9, tarsus 1·5.

Hab. Madagascar.

a. Ad. sk.	Madagascar.	Shelley Coll.
b. Ad. sk.	Madagascar.	Sharpe Coll.
c, d. Ad.; *e.* Juv. sk.	Madagascar.	Seebohm Coll.
f. Ad. sk.	East of Antananarivo, Madagascar, July (*W. Deans Cowan*).	Tweeddale Coll.
g. Ad.; *h, i.* Pull. sk.	Ankafana (*W. Deans Cowan*).	Tweeddale Coll.
k, l. Ad. sk.	Madagascar.	Old Coll.

(Types of *R. poliocephalus*, Gray.)

2. LIMNOPARDALUS.

	Type.
Limnopardalus, *Cab. J. f. O.* 1856, p. 428	L. maculatus.
Pardirallus, *Bp. C. R.* xliii. p. 599 (1856)	L. maculatus.
Ortygonax, *Heine in Heine & Reichen. Nomenel. Mus. Hein.* p. 321 (1890)	L. rytirhynchus.

Range. Confined to South America; Cuba.

Key to the Species.

a. Breast spotted and flanks barred with white; back and wings streaked with white; a bright red spot at base of lower mandible. *maculatus*, p. 28.

b. No white spots or bars on the under surface and no white streaks on the upper surface.
a'. With a bright red spot at the base of the lower mandible (sometimes obsolete in young birds).
a''. Scapulars and lower back mottled with blackish bases to the feathers ..... *rytirhynchus*, p. 29.
b''. Upper surface uniform olive-brown .. *sanguinolentus*, p. 30.
b'. Red spot at base of lower mandible inconspicuous or absent altogether.
c''. Larger: deep chocolate-brown above; throat grey like the rest of the under surface; tail blackish, washed with brown ..... *vigilantis*, p. 31.
d''. Smaller: throat white; tail black.... *nigricans*, p. 31.

1. Limnopardalus maculatus.

Le Râle tacheté de Cayenne, *Daubent. Pl. Enl.* ix. pl. 775; *Buff. Hist. Nat. Ois.* viii. p. 164 (1781).
Rallus maculatus, *Bodd. Tabl. Pl. Enl.* p. 48 (1783); *Schleg. Mus. Pays-Bas*, Ralli, p. 13 (1865); *Scl. & Salv. P. Z. S.* 1868, p. 444; *Pelz. Orn. Bras.* p. 315, note (1871: Cayenne) & p. 458; *Scl. & Salv. Nomencl. Av. Neotrop.* p. 139 (1873); *Pelz. Ibis*, 1873, p. 122; *Durnf. Ibis*, 1878, p. 65 (Buenos Ayres); *Barrows, Auk*, i. p. 276 (1884: Uruguay); *Berl. J. f. O.* 1887, p. 133 (Paraguay); *Withington, Ibis*, 1888, p. 471 (Lomas de Zamora); *Cory, B. W. Ind.* p. 253 (1889); *Scl. & Hudson, Argent. Orn.* ii. p. 148, pl. xix. (1889); *Holland, Ibis*, 1892, p. 209 (Argentina).
Variegated Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 327 (1785).
Rallus variegatus, *Gm. Syst. Nat.* i. p. 718 (1788); *D'Orb. in Ramon de la Sagra, Hist. Nat. Cuba, Ois.* p. 180 (1838); *Burm. Th. Bras.* iii. p. 382 (1856); *Brewer, Proc. Bost. Soc. N. H.* vii. p. 308 (1861: Cuba).
Ypacaha jaspeado todo, *Azara, Apunt.* iii. p. 217 (1806).
Rallus nivosus, *Swains. An. in Menag.* p. 361 (1837).
Aramides maculatus, *Gray, Gen. B.* iii. p. 594 (1846); *Hartl. Ind. Azara*, p. 23 (1847).
Porzana variegata, *Reichenb. Handb., Fulicariæ*, Taf. cxviii. fig. 1175 (1851).
Limnopardalus variegatus, *Cab. J. f. O.* 1856, p. 428; *Gundl. Orn. Cuba*, p. 361 (1866); *id. J. f. O.* 1875, p. 357; *id. Orn. Cuba*, p. 299 (1876).
Pardirallus variegatus, *Bp. C. R.* xliii. p. 599 (1856).
Aramus maculatus, *Gray, Hand-l. B.* iii. p. 59, no. 10416 (1871).

Adult. General colour above brown, mottled with black centres and white edges to the feathers; scapulars like the back; lower back and rump more uniform brown, mottled with blackish centres to the feathers, which have only a few white spots; upper tail-coverts and tail-feathers blackish, edged with brown, with a few white spots on the former; wing-coverts more uniform brown, with a few broken spots of white on the edge, these spots with subterminal bars of black; bastard-wing, primary-coverts, and quills dark brown; inner

secondaries mottled with black centres and white edges like the back; crown of head nearly uniform blackish brown, with only a few white spots: hind neck and mantle black, with longitudinal twin spots of white on the margins, producing a streaked appearance; lores dusky blackish; sides of face and ear-coverts black, with tiny white spots; cheeks and throat white, the former streaked with black; lower throat, fore neck, and chest black, with longitudinal white spots on the margins of the feathers; sides of body and flanks barred with black and white, more broadly on the latter; thighs white externally, black behind; abdomen and under tail-coverts white; under wing-coverts and axillaries blackish, spotted and barred with white: quills uniform dusky brown: "feet red; iris red" (*F. Withington*). Total length 10·5 inches, culmen 1·8, wing 5·2, tail 1·9, tarsus 1·5, middle toe and claw 2·15.

Hab. South America, from Paraguay northwards to Guiana, Colombia, Trinidad, Tobago, and Cuba.

a. ♂ ad. sk.	Lomas de Zamora, Buenos Aires, Nov. 27 (*F. Withington*).	Sclater Coll.
b. Ad. sk.	Brazil.	Salvin-Godman Coll.
c, *d*. Ad. sk.	Pernambuco (*W. A. Forbes*).	Salvin-Godman Coll.
e. Ad. st.	R. Amazon.	Purchased.
f. Ad. sk.	Surinam (*Wedderburn*).	Salvin-Godman Coll
g. Ad. sk.	Tobago (*Kirk*).	Jardine Coll.
h. Ad. sk.	Trinidad.	Old Coll.
i. Ad. st.	Bogota.	Old Coll.

2. Limnopardalus rytirhynchus.

Ypacahá pardo, *Azara, Apunt.* iii. p. 220 (1806).

Rallus rytirhynchus, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 549 (1819); *Hartl. Ind. Azara*, p. 23 (1847); *Scl. & Salv. P. Z. S.* 1868, p. 145 (Conchitas), p. 446; *id. Nomencl. Av. Neotr.* p. 139 (1873); *Tacz. P. Z. S.* 1874, p. 559 (Junin); *Hudson, P. Z. S.* 1876, p. 104 (Buenos Ayres); *Durnf. Ibis*, 1878, p. 65 (B. Ayres); *White, P. Z. S.* 1883, p. 42 (Cordova); *Barrows, Auk*, i. p. 276 (1884: Uruguay); *Withington, Ibis*, 1888, p. 471 (Lomas de Zamora); *Scl. & Hudson, Argent. Orn.* ii. p. 149 (1889).

Rallus setosus, *King, Zool. Journ.* iv. p. 94 (1828).

Rallus sanguinolentus, pt., *Gray, List Grallæ Brit. Mus.* p. 115 (1844).

Rallus cæsius (*nec Spix*), *Tschudi, Faun. Peruan., Aves*, pp. 52, 301 (1845–46); *Schl. Mus. Pays-Bas*, Ralli, p. 8 (1865); *Tacz. P. Z. S.* 1880, p. 213 (Cutervo).

Rallina cæsia, *Reichenb. Handb., Fulic.* Taf. cxxii. fig. 1201 (1851).

Aramides rhytirhynchus, *Burm. Reis. La-Plata St.* ii. p. 504 (1861: Paraná).

Aramides zelebori, *Pelz. Reis. Novara, Vög.* p. 133 (1865).

Rallus zelebori, *Pelz. Orn. Bras.* pp. 315, 458 (1871: Rio de Janeiro).

Aramus rythirhynchus, *Gray, Hand-l. B.* iii. p. 59, no 10422 (1871).

Rallus nigricans (*nec V.*), *Durnf. Ibis*, 1877, p. 193.

Adult. General colour above olive-brown, mottled with black bases to the scapulars and the feathers of the lower back and rump, the inner secondaries also black, broadly margined with olive-brown; head more ashy brown than the back; sides of face and under surface of body slaty grey, more dusky on the lower flanks; under tail-coverts blackish, with sandy-brown margins: "bill dark green—bright blue and scarlet at the base; legs vermilion; iris bright red" (*W. H. Hudson*). Total length 10·5 inches, culmen 2, wing 4·95, tail 2·3, tarsus 1·15, middle toe and claw 1·9.

Hab. From Southern Brazil and Argentina to Mendoza and Central Peru.

a, b. Ad. et juv. sk.	Brazil.	M. Claussen [P.].
c. Ad. sk.	Montevideo.	Sir W. Burnett and Adm. Fitzroy [P.].
d. ♂ ad. sk.	Belgrano, Buenos Ayres, Oct.	H. Durnford, Esq. [C.].
e. Ad. sk.	Alvear, Buenos Ayres.	H. Durnford, Esq. [C.].
f. ♀ ad. sk.	Conchitas, Buenos Ayres, Oct. (*W. H. Hudson*).	Salvin-Godman Coll.
g. ♂ ad. sk.	Lomas de Zamora, Nov. 8 (*F. Withington*).	Sclater Coll.
h. ♂ ad. sk.	Cosquin, Cordova, Aug. 2 (*E. W. White*).	Salvin-Godman Coll.
i. ♀ ad. sk.	Pampas Argentinas (*Leybold*).	Salvin-Godman Coll.
k. Juv. sk.	Mendoza (*Leybold*).	Salvin-Godman Coll.
l. ♀ ad. sk.	Junin, Peru (*Jelski*).	Warsaw Museum [P.].

Subsp. *a.* **Limnopardalus sanguinolentus.**

Rallus sanguinolentus, *Swains. An. in Menag.* p. 335 (1837); *Darwin, Voy. 'Beagle,' Birds,* p. 133 (1841: Valparaiso); *Bridges, P. Z. S.* 1843, p. 108; *Gray, List Gallæ Brit. Mus.* p. 115 (1844); *id. Gen. B.* iii. p. 594 (1846); *Yarrell, P. Z. S.* 1847, p. 54 (egg); *Ep. C. R.* xliii. p. 598 (1856).

Rallus cæsius (*nec Spix*), *Tschudi, Faun. Peruan.* p. 300 (1844-46); *Cass. U.S. Expl. Exped. Gilliss,* p. 195 (1865: Chili); *Schl. Mus. Pays-Bas,* Ralli, p. 8 (1865); *Tacz. Orn. Pérou,* iii. p. 316 (1886: Lima).

Rallus bicolor, *Gay, Faun. Chilen.* i. p. 434, pl. 10 (1847).

Rallus ricordi, *Ep. C. R.* xliii. p. 598 (1856).

Rallus rythirhynchus (*nec V.*), *Scl. & Salv. P. Z. S.* 1867, p. 990 (Arequipa); *Oust. Miss. Sci. Cap Horn, Zool.* vi. *Ois* p. 131, pl. ii. (1891).

Adult male. General colour above uniform olive-brown, rather darker and more chocolate on the ower back, rump, and upper tail-coverts; wing-coverts like the back; bastard-wing, primary-coverts, and quills chocolate-brown; inner secondaries more olive like the back; tail-feathers dark chocolate-brown, with lighter

brown margins; head dark slaty grey, becoming browner on the nape and hind neck, the forehead with blackish shaft-lines to the feathers; sides of face and sides of neck, and entire under surface of body clear slaty grey; lores somewhat dusky; thighs and lower abdomen ashy grey, the flanks browner; the under tail-coverts blackish, with brown tips to the shorter ones; under wing-coverts dusky brown, like the quill-lining. Total length 12·5 inches, culmen 1·4, wing 5·35, tail 2·7, tarsus 1·8, middle toe and claw 2·2.

Hab. From Central Chili to Peru.

a–f. Ad. sk.	Central Chili.	Berkeley James Coll.
g. ♂ ad. sk.	Santiago, Chili (*Leybold*).	Salvin-Godman Coll.
h. Ad. sk.	Valparaiso.	Sir W. Burnett and Adm. Fitzroy [P.].
i–n. ♂ ♀ ad. et imm. sk.	Tarapacá, Jan. to Aug. (*A. Lane*).	Berkeley James Coll.
o. ♀ ad. sk.	Arequipa, Peru, June (*H. Whitely*).	Salvin-Godman Coll.
p. ♂ imm. sk.	Arequipa, March 18 (*H. Whitely*).	Tweeddale Coll.

Subsp. β. Limnopardalus vigilantis. (Plate IV.)

Rallus rytirhynchus (*nec V.*), *auct. recent., pt.*
Rallus antarcticus (*lapsu*!! *nec King*), *Sharpe, P. Z. S.* 1881, p. 14 (Tom Bay).

Adult male. Similar to *L. rytirhynchus*, but much larger and distinguished by its larger bill and the want of the red spot at the base of the lower mandible: "bill dark green; legs and feet red; iris red" (*Dr. Coppinger*). Total length 15·5 inches, culmen 2·55, wing 5·3, tail 3, tarsus 1·85, middle toe and claw 2·2.

Adult female. Similar to the male in colour; under tail-coverts blackish: "bill with greenish lustre; legs red; iris dark red" (*Dr. Coppinger*). Total length 15·5 inches, culmen 2·55, wing 5·9, tail 3·2, tarsus 1·9, middle toe and claw 2·25.

Hab. Straits of Magellan.

a. ♂ ad. sk.	Hermit Island.	Antarctic Exped.
b. ♂ ad. sk.	Port Henry, Straits of Magellan, Jan. 29 (*Dr. Coppinger*).	Salvin-Godman Coll.
c. ♂ ad. sk.	Mayne Harbour, March (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
d. ♀ ad. sk.	Tom Bay, April (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'

3. Limnopardalus nigricans.

Ypacahá obscuro, *Azara, Apunt.* iii. p. 219 (1806).
Rallus nigricans, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 560 (1819); *Neuwied, Beitr. Naturg. Bras.* iii. p. 782 (1833: Rio de Janeiro); *Gray, Gen. B.* iii. p. 593 (1846); *Schl. Mus. Pays-Bas*, Ralli, p. 8 (1865); *Scl. & Salv. P. Z. S.* 1868, p. 446; *Pelz. Orn. Bras.* p. 315 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 139 (1873);

Taez. P. Z. S. 1879, p. 244 (Pascomayo); *Scl. & Salv. t. c.* p. 545 (Antioquia); *W. A. Forbes, Ibis*, 1881, p. 358 (Pernambuco); *Taez. P. Z. S.* 1882, p. 42 (Huambo); *id. Orn. Pérou*, iii. p. 317 (1886); *Scl. & Hudson, Argent. Orn.* ii. p. 150 (1889).
Rallus immaculatus, *Licht. Verz. Doubl.* p. 79 (1823).
Gallinula cæsia, *Spix, Av. Bras.* ii. p. 73, Taf. xcv. (1824).
Rallus cæsius, *Swains. An. in Menag.* p. 335 (1837); *Gray, List Grallæ Brit. Mus.* p. 115 (1844).
Aramides cæsius, *Gray, Gen. B.* iii. p. 594 (1846).
Aramides immaculatus, *Gray, Gen. B.* iii. p. 594 (1846).
Aramides nigricans, *Hartl. Ind. Azara*, p. 23 (1847); *Burm. Reis. La-Plata St.* ii. p. 504 (1861).
Aramus nigricans, *Gray, Hand-l. B.* iii. p. 60, no. 10423 (1871).

Adult male. Similar to *L. rytirhynchus*, but wanting the bright red spot at the base of the lower mandible, and further distinguished by its white throat and perfectly black under tail-coverts and tail: "bill bright green, yellowish or greenish yellow at the base; feet bright coral-red; iris brilliant carmine" (*Neuwied*). Total length 12 inches, culmen 2·25, wing 5·3, tail 1·75, middle toe and claw 2·45.

Hab. South America, from Brazil to Peru and U.S. Colombia.

a, b. Ad. sk.	South America.	Gould Coll.
c. Ad. sk.	Brazil.	M. Clausseu [P.].
d. Ad. sk.	Brazil.	Salvin-Godman Coll.
e. ♂ ad. sk.	Pelotas, Rio Grande do Sul (*Joyner*).	Salvin-Godman Coll.
f. Ad. sk.	Santa Fé, Minas Geraes, Brazil (*H. Rogers*).	Salvin-Godman Coll.
g, h. Ad. sk.	Bahia (*Dr. Wucherer*).	Salvin-Godman Coll.
i. Ad. sk.	Brazil.	Lieut. Maw [P.].
k. Juv. sk.	Pacasmayo, E. Peru (*Jelski*).	Salvin-Godman Coll.
l, m. ♂ ad. sk.	Medellin, U.S. Colombia (*T. K. Salmon*).	Salvin-Godman Coll.

3. HYPOTÆNIDIA.

	Type.
Hypotænidia, *Reichenb. Syst. Av.* p. xxiii (1852)..	H. philippinensis.
Lewinia, *Bp. C. R.* xliii. p. 599 (1856).....	H. brachypus.
Donacias, *Heine in Heine & Reichen. Nomencl. Mus. Hein.* p. 321 (1890)	H. brachypus.

Range. From Southern China to the Burmese countries, Eastern portion of the Indian Peninsula and Ceylon, the whole of the Indo-Malayan region, and the Moluccas to Australia, New Zealand, and the islands of the Pacific Ocean.

a. Throat white.
  a'. Breast uniform; no white eyebrow.
    a''. Mantle and upper back spotted with white and mottled with black.
      a'''. Lores ashy; under tail-coverts barred with black .... *striata*, p. 33.
      b'''. Lores blackish; under tail-coverts black with narrow white bars .... *obscurior*, p. 37.

b''. Mantle brown, broadly streaked with black, but not having white spots ..	*brachypus*, p. 37.
b'. Breast barred with white and more narrowly with black; a white eyebrow; quills externally chequered with rufous.	*philippinensis*, p. 39. / *macquariensis*, p. 43.
b. Throat black, or black narrowly barred with white.	
c'. A ferruginous band across the chest	*torquata*, p. 43.
d'. No chestnut band across the chest, which is barred across with black and white.	
c''. A broad band of white along the sides of the face.	
c'''. Throat black, barred with white ..	*celebensis*, p. 45.
d'''. Throat black.	
c^4. Only the throat black: larger....	*saturata*, p. 45.
d^4. Throat and fore neck black: smaller	*sulcirostris*, p. 46.
d''. No white band on the sides of the face, the cheeks being rufous brown like the sides of the head; thighs and under tail-coverts uniform black	*insignis*, p. 46.

1. Hypotænidia striata.

Le Rasle rayé des Philippines, *Briss. Orn.* v. p. 167, pl. xiv. fig. 2 (1760).

Rallus striatus. *Linn. S. N.* i. p. 262 (1766); *Gm. S. N.* i. p. 714 (1788); *Strickl. P. Z. S.* 1846, p. 105; *Blyth. Cat. B. Mus. As. Soc.* p. 285 (1849); *Adams, P. Z. S.* 1858, p. 508 (Punjab); *Swinh. Ibis*, 1863, p. 427 (Formosa); *Jerd. B. Ind.* iii. p. 726 (1864); *Swinh. Ibis*, 1865, p. 355, 1866, p. 294; *Blyth, Ibis*, 1867, p. 172; *Holdsw. P. Z. S.* 1872, p. 476; *Godw.-Aust. J. A. S. Beng.* xliii. p. 175 (1874: Shillong).

Le Tiklin rayé, *Buff. Hist. Nat.* viii. p. 161 (1781).

Philippine Rail, var. *e*, *Lath. Gen. Syn.* iii. pt. 1, p. 232 (1785).

Rallus gularis, *Horsf. Tr. Linn. Soc.* xiii. p. 196 (1821); *Raffles, t. c.* p. 328 (1822); *Eyton, P. Z. S.* 1839, p. 107 (Malacca); *Gray. Gen. B.* iii. p. 593 (1846); *Gould, P. Z. S.* 1859, p. 150 (Tavoy); *Bernst. J. f. O.* 1861, p. 190 (Java); *Scl. P. Z. S.* 1863, p. 223 (Banjarmassing).

Rallus albiventer, *Swains. An. in Menag.* p. 337 (1837).

Hypotænidia striata, *Schl. Mus. Pays-Bas*, Ralli, p. 24 (1865: China; Cochin China; Luzon; Java); *Swinh. P. Z. S.* 1871, p. 415; *Wald. Tr. Z. S.* viii. p. 95 (1872: Celebes); *id. Ibis*, 1872, p. 383 (Marup); *Hume, Nests & Eggs Ind. B.* p. 605 (1873); *Salvad. Ucc. Born.* p. 336 (1874); *Blyth & Wald. B. Burm.* p. 161 (1875); *Wald. Tr. Z. S.* ix. p. 232 (1875: Luzon); *Hume, Str. F.* ii. p. 483 (1874: Tenasserim), iii. p. 185 (1875: Pegu); *Armstr. Str. F.* iv. p. 349 (1876: Syriam); *Oates, Str. F.* v. p. 165 (1877); *Wardlaw Ramsay, Ibis*, 1877, p. 471 (Tonghoo); *Tweedd. P. Z. S* 1877, p. 768 (Cebu), p. 834 (Butuan); *David & Oust. Ois. Chine*, p. 488 (1877); *Tweedd. P. Z. S.* 1878, p. 345 (S. Leyte); *Hume & Davison, Str. F.* vi. p. 468 (1878: Tenasserim); *Hume. Str. F.* vii. p. 489 (1878: Calcutta); *Anderson, Zool. Yun-nan Exped., Birds*, p. 692 (1878: Momien); *Legge, B. Ceylon*, p. 775 (1879); *Sharpe, P. Z. S.* 1879, p. 352 (Labuan); *Tirant, Bull. Comm. Agric. Cochin Chine*, (3) i. p. 160 (1879); *Hume, Str. F.* viii.

p. 70 (1879: Malay Peninsula), p. 113; *id. & Marsh. Game B. Ind.* ii. p. 245, pl. 43. fig. 2 (1879); *Vidal, Str. F.* ix. p. 87 (1880: S. Konkan); *Bingham, t. c.* p. 187 (Kaukaryit); *Hume, t. c.* p. 259 (Cachar); *Butler, Cat. B. S. Bomb. Pres.* p. 80 (1880); *Wardlaw Ramsay, P. Z. S.* 1880, p. 15 (Sumatra); *Kelham, Ibis*, 1882, p. 189 (Singapore); *Nichols. Ibis*, 1883, p. 257 (Sumatra); *Oates, Handb. B. Br. Burm.* ii. p. 339 (1883); *Davison, Str. F.* x. p. 415 (1883: Wynaad); *Terry, t. c.* p. 480 (1887: Palani Hills); *Guillem. P. Z. S.* 1885, p. 273 (Sulu Isl.); *Hume, Str. F.* xi. p. 329 (1888: Manipur; Sylhet; N.E. Cachar); *Sharpe, Ibis*, 1890, pp. 145, 285 (Labuan); *Oates, ed. Hume's Nests & Eggs Ind. B.* iii. p. 399 (1890); *Barnes, J. Bomb. Soc.* vi. pl. to p. 129, fig. 913 (1890).

Rallus indicus, *Reichenb.* (*nec Blyth*) *Handb., Fulic. Novit.* lix. figs. 2575–76 (1851, *ex. Verr. MSS.*).

Lewinia albiventer, *Bp. C. R.* xliii. p. 599 (1856).

Eulabeornis celebensis (*nec Q. & G.*), *Pelz. Reis. 'Novara,' Vög.* p. 134 (1865; av. juv.).

Eulabeornis striatus, *Gray, Hand-l. B.* iii. p. 57, no. 10378 (1871); *id. Fasc. B. China*, p. 6 (1871).

Eulabeornis albiventer, *Gray, t. c.* p. 57, no. 10389 (1871).

Gallinula gularis, *Gray, Fasc. B. China*, pl. ix. (1871).

Hypotænidia jouyi, *Stejn. Proc. U.S. Nat. Mus.* ix. p. 362 (1886); *Styan, Ibis*, 1891, p. 500 (Shanghai; breeds).

Adult male. General colour above olive-brown, the feathers centred with black and barred with wavy, non-continuous bars of black; wing-coverts like the back and similarly barred, as also the inner secondaries; bastard-wing and primary-coverts and quills blackish, with pure white spots and bars; tail-feathers blackish, washed with olive-brown and narrowly barred with white; crown of head, hind neck, and sides of neck chestnut, becoming brighter on the latter, the centre of the crown somewhat blackish; lores, sides of face and ear-coverts, lower throat, fore neck, and breast slaty grey; chin and upper throat white; sides of body and flanks, abdomen, thighs, and under tail-coverts, as well as the under wing-coverts and axillaries, black, barred with white, the bands much broader on the sides of the body: "basal half of bill rose-pink, the anterior half horn-colour; legs and toes deep olive-brown: claws pale brown; iris red" (*E. W. Oates*). Total length 9·7 inches, culmen 1·5, wing 4·75, tail 1·85, tarsus 1·45.

Adult female. Similar to the male, but paler in colour and decidedly more olive, the head not so bright chestnut; the white bars on the lower parts much tinged with fulvous. Total length 9·4 inches, culmen 1·4, wing 4·35, tail 1·6, tarsus 1·4.

In winter the plumage is entirely overshaded with olive-brown, and there is a distinct fulvescent tinge on the abdomen and under tail-coverts, almost hiding the black bars on the latter.

Young. Differs from the adults in having the bill black, and the upper surface much darker and without any white spots and bars on the back; the head blackish, and the back darker olive-brown, with broad black centres to the feathers; no rufous on the head or sides of crown and sides of neck.

I have carefully examined our series of this species to see if there was anything to confirm Dr. Stejneger's description of *Rallus jouyi*, and with that view I selected three specimens which illustrated the characters given by him for *H. striata*, *H. gularis*, and *H. jouyi*. A specimen from Cebu answers to his *H. striata*, another from Malacca to his *H. gularis*, and another from Formosa to his *H. jouyi*. I then selected a large series with the lower breast not barred, all of which ought to be, according to Dr. Stejneger, either *H. striata* or *H. gularis*; but when I came to examine the secondary character of the white spots on the primary-coverts, I was at once met with an amount of variation which shows that no reliance can be placed on this character.

I append a list of the localities of the specimens examined:—

a. With white bars and white spots on the primary-coverts well developed.—Pegu (*Oates*), Penang (*Cantor*), Malacca (*Davison*), Singapore (*Davison*).

b. Specimens with few spots.—Pegu (*Oates*), Penang (*Cantor*), Klang (*Davison*), Malacca (*Maingay*), Nealys (*Davison*), Johore (*Davison*).

c. Specimens with no spots.—Klang (*Davison*), Malacca (*Maingay*), Johore (*Davison*), Singapore (*Davison*).

There is equal variation in the amount of barring on the breast, even in specimens from the same locality, and I confess that I cannot separate *H. jouyi*, or *H. gularis*, on this account. The Malaccan birds are certainly whiter on the abdomen and lower breast than birds from many other localities, but it is equally certain that there are many specimens from Malacca which are inseparable from *H. gularis*. Of course it is possible that these may be migratory specimens, which winter in Malacca; but there seems to be every gradation between these and the white-breasted form, so that at present I am unable to find a constant character to separate the three races as Dr. Stejneger proposes; and I think that the differences in plumage can be accounted for on the score of age alone.

Hab. Ceylon and Southern India to Eastern Bengal, thence through the Burmese countries to China and down the Malayan Peninsula to the Indo-Malayan Islands.

a. Ad. sk.	Ceylon.	T. Thwaites, Esq. [C.].
b. Ad. sk.	Ceylon.	Hume Coll.
c. ♂ ad. sk.	Ceylon, March 12 (*Nevill*).	Tweeddale Coll.
d. ♂ ad. sk.	Colta, Western Province, Ceylon (*Hart*).	Hume Coll.
e. Ad. sk.	Madras.	Sir Walter Elliot [P.].
f, *g*. ♂ ad. sk.	West Coast of Madras.	Hume Coll.
h. ♂ ad. sk.	Madras.	Hume Coll.
i. ♀ ad. sk.	Kotagherry, March 15 (*Miss Cockburn*).	Hume Coll.
k, *l*. ♂ ♀ ad. sk.	Belgaum, July, Sept. (*E. A. Butler*).	Hume Coll.

m. ♀ ad. sk.	Wynaad, Aug. 24 (*J. Darling*).	Hume Coll.
n. Ad. sk.	Darjeeling.	India Museum.
o–t. ♂ ad. et imm.; *u–y*. ♀ ad. et imm. sk.	Calcutta, Dec. to Feb.	Hume Coll.
z. ♂ ad. sk.	Calcutta, Feb. (*J. Biddulph*).	Tweeddale Coll.
a', *b'*. ♂ ♀ ad. sk.	Cachar, May, June (*J. Inglis*).	Hume Coll.
c'–e'. Ad. sk.	Sylhet.	Hume Coll.
f'. Ad. sk.	Rangoon, May 3.	Hume Coll.
g'. ♂ ad. sk.	Rangoon, July 7 (*R. G. W. R.*).	Tweeddale Coll.
h'. ♂ ad. sk.	Syriam, Feb. 16 (*J. Armstrong*).	Hume Coll.
i', *k'*. ♂ ♀ ad. sk.	Lower Pegu, Sept.	Oates Coll.
l'. ♀ ad. sk.	Tavoy, May 13 (*W. Davison*).	Hume Coll.
m'. ♀ imm. sk.	Attaran River, Feb. 16 (*W. Davison*).	Hume Coll.
n'–u'. Ad. et juv. sk.	Penang (*Dr. Cantor*).	India Museum.
v'–x'. ♂; *y'–a''*. ♀ ad. et juv. sk.	Klang, Salangore, June, Oct., Jan. (*W. Davison*).	Hume Coll.
b''. Juv. sk.	Malacca (*Dr. Cantor*).	India Museum.
c'', *d''*. Ad. sk.	Malacca, March, July (*W. Davison*).	Hume Coll.
e''. Ad.; *f''*, *g''*. Juv. sk.	Malacca (*R. G. W. R.*).	Tweeddale Coll.
h''–l''. Ad. sk.	Malacca (*Dr. Maingay*).	Tweeddale Coll.
m''. ♀ imm. sk.	Nealys, Oct. 14 (*W. Davison*).	Hume Coll.
n'', *o''*. ♂ ♀ ad. sk.	Johore, March (*W. Davison*).	Hume Coll.
p''. Ad. sk.	Singapore.	Hume Coll.
q''–s''. ♂ ad.; *t''*. ♀ ad.; *u''*. ♀ pull. sk.	Singapore Island, Jan., Aug., Oct. (*W. Davison*).	Hume Coll.
v''. Ad. sk.	Manila, Luzon (*Maitland Heriot*).	Tweeddale Coll.
w''. Ad. sk.	South Luzon (*Hugh Cuming*).	Gould Coll.
x'', *y''*. ♂ ad. sk.	Cebu, March, April (*A. H. Everett*).	Tweeddale Coll.
z''. ♂ ad. sk.	Marinduque, May 5.	E. L. Moseley [C.].
a³–c³. ♂ ad. et juv.; *d³*, *e³*. ♀ ad. sk.	Amparo, S. Leyte, July (*A. H. Everett*).	Tweeddale Coll.
f³, *g³*. ♂ ♀ ad. sk.	Butuan, May (*A. H. Everett*).	Tweeddale Coll.
h³, *i³*. Ad. et juv. sk.	Labuan.	Sir Hugh Low [C.].
k³, *l³*. Ad. sk.	Labuan, Sept., Dec.	A. H. Everett, Esq. [C.].
m³. Ad. sk.	Sarawak.	Wallace Coll.
n³. ♂ ad. sk.	Marup (*A. H. Everett*).	Tweeddale Coll.
o³. Ad. sk.	Banjarmassing (*J. Motley*).	Wallace Coll.
p³, *q³*. Ad. sk.	Java (*Horsfield*).	India Museum. (Types of *R. gularis*.)
r³. Ad. sk.	Sumatra (*Carl Bock*).	Tweeddale Coll.
s³. Ad. sk.	Menado, Celebes.	Gould Coll.
t³. Ad. sk.	Menado.	Wallace Coll.
u³, *v³*. ♀ ad. sk.	Formosa, Aug., Dec. (*R. Swinhoe*).	Seebohm Coll.

Subsp. *a*. Hypotænidia obscurior.

Rallus striatus (*nec L.*), *Bull, Str. F.* i. p. 86 (1873).
Hypotænidia striata (*nec L.*), *Walden, Ibis*, 1874, p. 146; *Hume, Str. F.* ii. p. 305 (1874).
Hypotænidia obscuriora, *Hume, Str. F.* ii. p. 302 (1874), iv. p. 294 (1876); *id. Str. F.* viii. p. 113 (1879); *id. & Marsh. Game B. Ind.* ii. p. 253, pl. 43. fig. 1; *Oates, ed. Hume's Nests & Eggs Ind. B.* iii. p. 400 (1890).
Hypotænidia ferrea, *Walden, Ibis*, 1874, p. 147.
Hypotænidia abnormis, *Hume, Str. F.* iii. p. 389 (1875), & iv. p. 294 (1876); *id. Str. F.* viii. p. 113 (1879).

Adult male. Similar to *H. striata*, but everywhere darker; the back and wings blacker and the rufous of the head deeper and more of a vinous chestnut; the grey of the throat and breast much darker and the flanks and sides of body blackish, more narrowly barred with white; bill larger than in *H. striata*: "bill horny, light red at gape; feet dark greenish horny; iris brown" (*W. Davison*). Total length 11·5 inches, culmen 1·7, wings 5·5, tail 2·7, tarsus 1·6.

Adult female. Similar to the male in colour. Total length 11 inches, culmen 1·65, wing 5·2, tail 2·5, tarsus 1·3.

Hab. Andaman Islands.

a. Juv. sk.	Corbyn's Cove, S. Andamans, Sept. 25 (*A. de Roepstorff*).	Hume Coll. (Type of *H. abnormis*.)
b. ♀ ad. sk.	South Andamans, April 25 (*R. G. W. R.*).	Tweeddale Coll. (Types of *H. ferrea*.)
c, d. ♂ ♀ ad. sk.	South Andamans, June, Sept. (*R. J. Wimberley*).	Hume Coll.
e. ♂ ad. sk.	South Andamans, Sept. 25 (*F. A. de Roepstorff*).	Hume Coll.
f, g. ♂ ad.; *h*. ♀ ad. sk.	Port Blair, July (*R. J. Wimberley*).	Tweeddale Coll.
i, k. ad. sk.	Port Blair, Aug. (*R. J. Wimberley*).	Hume Coll.
l. Ad. sk.	Mount Harriet, Nov. 20 (*W. Davison*).	Hume Coll.
m o. ♂ ad. sk.	Aberdeen, April, May (*W. Davison*).	Hume Coll.

2. Hypotænidia brachypus *.

Rallus pectoralis (*nec Gould*), *Less. Traité*, p. 536 (1831, *ex Cuvier MSS. in Mus. Paris*: descr. nullâ); *Gray, Gen. B.* iii. p. 593 (1846); *Pucher. Rev. et Mag. de Zool.* 1851, p. 276.
Rallus brachypus, *Swains. An. in Menag.* p. 336 (1837); *Gray, List*

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* Allied to this species is the apparently extinct

HYPOTÆNIDIA PACIFICA.

Pacific Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 255 (1785).
Rallus pacificus, *Gm. Syst. Nat.* i. p. 717 (1788); *Forster, Icon. ined.* pl. 128; *id. Descr. Anim.* p. 177 (1844); *Wiglesw. Abhandl. k. Mus. Dresd.* no. 6, p. 60 (1891).

"Black, with white spots or bars; abdomen, throat, and eyebrow white; hind neck ferruginous; breast grey; bill blood-red; iris red" (*Forster*).
Hab. Tahiti.

Grallæ Brit. Mus. p. 115 (1844); *id. Gen. B.* iii. p. 593 (1846); *Reichenb. Handb., Fulic.* tab. cccv. figs. 2467–68 (1852); *Gould, Handb. B. Austr.* ii. p. 336 (1865); *Hügel, Ibis*, 1875, p. 392 (Auckland Isl.); *Buller, Tr. N. Zeal. Inst.* xi. p. 362 (1878); *id. B. N. Zeal.* 2nd ed. ii. p. 100 (1888); *North, Cat. Nests & Eggs Austr. B.* p. 329 (1889).

Rallus lewini, *Swains. An. in Menag.* p. 336 (1837); *Gray, Gen. B.* iii. p. 593 (1846); *Gould, B. Austr.* vi. pl. 77 (1848); *Reichenb. Vög. Neuholl.* p. 242 (1850).

Lewinia brachypus, *Bp. C. R.* xliii. p. 599 (1856).

Lewinia pectoralis (*nec Gould*), *Bp. C. R.* xliii. p. 599 (1856).

Eulabeornis brachypus, *Gray, Hand-l. B.* iii. p. 57, no. 10388 (1871).

Hypotænidia (Lewinia) brachypus, *Ramsay, Tab. List Austr. B.* p. 21 (1888).

Adult. General colour above warm olive-brown, thickly streaked with black centres to the feathers; the scapulars, lower back, rump, and upper tail-coverts like the back, a few feathers having white tips or bars; lesser wing-coverts uniform olive-brown; median and greater coverts olive-brown, barred and tipped with white, with a subterminal shade of black, some of the long greater coverts almost entirely black with narrow white bars; bastard-wing, primary-coverts and quills nearly uniform brown, externally olive-brown; the inner secondaries blackish, edged with olive-brown and barred with white on the outer web; tail-feathers like the back, black with olive-brown edges; crown of head, nape, and hind neck dull vinous chestnut, streaked with black centres to the feathers; lores dusky; a broad eyebrow of uniform vinous chestnut, extending to the sides of the hind neck, and widening out towards the latter; sides of face, ear-coverts, and lower sides of neck olive-brown; cheeks a little more ashy; throat white; fore neck and breast olive-brown, inclining to ashy grey on the latter; lower breast and abdomen isabelline; the sides of body and flanks black, barred with white, or isabelline on the sides of the vent; under tail-coverts isabelline buff, with concealed black bases; under wing-coverts nearly uniform dusky blackish, washed with olive; axillaries olive-brown, with a few whitish bars; quills below dusky brown, with an olive shade: "bill brownish red; feet flesh-colour, becoming darker about the toes; iris hazel" (*J. Gould*). Total length 7·5 inches, culmen 1·2, wing 3·85, tail 1·7, tarsus 1.

Young. Similar to the adults but much duller on the upper surface, the vinous colour of the head and neck being absent; throat whitish; remainder of under surface dark ashy, the centre of the breast whitish; the sides of the body with a few black feathers barred with white.

Hab. Western and Southern Australia, north to the Wide Bay district; Tasmania; Auckland Islands.

a. Ad. st.	South Port Island, Tasmania.	J. Gould, Esq. [C.].
b. Ad. sk.	Australia.	J. Gould, Esq. [C.].
c, d. Ad.; *e–g.* Imm. sk.	Australia.	Tweeddale Coll.
h. Ad. sk.	Western Australia.	Gould Coll.
i, k. Ad. sk.	S. Queensland (*J. T. Cockerell*).	Salvin-Godman Coll.

3. Hypotænidia philippinensis.

Le Rasle rayé des Philippines, *Briss. Orn.* v. p. 163, tab. xiv. fig. 1 (1760).

Rallus philippensis, *Linn. Syst. Nat.* i. p. 263 (1766); *Gm. Syst. Nat.* i. p. 714 (1788); *Lath. Ind. Orn.* ii. p. 756 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 566 (1819); *Less. Traité*, p. 536 (1831); *Gray, List Grallæ Brit. Mus.* p. 117 (1844); *id. Gen. B.* iii. p. 593 (1846); *Peale, U.S. Expl. Exped.* p. 22 (1848); *Hartl. J. f. O.* 1854, p. 169; *Gray, Cat. B. Trop. Isl. Pacific Ocean*, p. 51 (1859); *Hartl. Ibis*, 1864, p. 232 (Fiji); *id. P. Z. S.* 1867, p. 831 (Pelew Isl.); *Buller, B. N. Zeal.* p. 176, pl. 20. fig. 2 (1873); *Finsch, Journ. Mus. Godeffr.* Heft viii. p. 37 (1875: Pelew Islands); *Sharpe, Voy. Erebus & Terror, App.* p. 29 (1878); *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 92 (1876); *Tristr. Ibis*, 1876, p. 265 (New Hebrides); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 375 (1876: New Britain); *Finsch, P. Z. S.* 1877, p. 785 (Ninafou, Friendly Isl.); *Nichols. Ibis*, 1881, p. 156 (Direction Isl.), 1882, p. 49 (Java); *Buller, B. N. Zeal.* 2nd ed. ii. p. 95, pl. 33. fig. 2 (1888).

Le Râle rayé des Philippines, *Daubent. Pl. Enl.* ix. pl. 774.

Le Tiklin, ou Râle des Philippines, *Buff. Hist. Nat. Ois.* viii. p. 160 (1781).

Philippine Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 230 (1785), & var. A, p. 231, pl. lxxxvi.

? Râle Tiklin, *Quoy & Gaim. Voy. Uranie*, p. 35 (1824: Guam).

Rallus assimilis, *Gray, in Dieffenb. Trav. N. Z.* ii. App. p. 197 (1843); *id. Voy. Erebus & Terror, Birds*, p. 14 (1844); *id. List Grallæ Brit. Mus.* p. 117 (1844); *id. Gen. B.* iii. p. 593 (1846); *id. Ibis*, 1862, p. 239 (Cook's Straits, N. Z.); *Finsch, J. f. O.* 1867, pp. 334, 336.

Rallus pacificus, var., *Forster, Icon. ined.* pl. 127; *Licht. Descr. Anim.* p. 178 (1844); *Gray, Cat. B. Trop. Isl. Pacif. Ocean*, p. 51 (1859).

Porzana philippensis, *Reichenb. Handb., Fulic.* tab. cxviii. figs. 1173–74 (1851).

Rallus pectoralis (*nec Cuvier*), *Gould, B. Austr.* vi. pl. 76 (1848); *Reichenb. Vög. Neuholl.* p. 154 (1851); *id. Handb., Fulic. Novit.* tab. xlii. figs. 2465–66 (1851); *Macg. Voy. 'Rattlesnake,'* ii. p. 358 (1852: Torres Straits); *Cass. U.S. Expl. Exped., Birds*, p. 303 (1858); *Gray, P. Z. S.* 1858, p. 198; *id. Cat. B. New Guinea*, p. 62 (1859); *id. Cat. B. Trop. Isl. Pacific Ocean*, p. 52 (1859); *Krefft, Ibis*, 1862, p. 191 (Brampton Shoals); *Sel. P. Z. S.* 1862, p. 325; *Pelz. Reis. Novara, Vög.* p. 134 (1865); *Finsch, Neu-Guinea*, p. 180 (1865); *id. J. f. O.* 1867, p. 336; *id. & Hartl. Faun. Centralp.* p. 157, Taf. iii. fig. 3 (1867; egg); *iid. P. Z. S.* 1868, pp. 4, 8, 117, 118 (Pelew Isl.); *Müller, P. Z. S.* 1869, p. 280; *Finsch & Hartl. P. Z. S.* 1869, p. 548 (Tonga); *iid. J. f. O.* 1870, pp. 122, 136, 354 (New Zealand); *Graeffe, t. c.* pp. 402, 414; *Hartl. & Finsch, P. Z. S.* 1871, p. 25 (Savai), 1872, pp. 89, 1071 (Pelew Isl.); *Finsch, J. f. O.* 1872, pp. 33 (Savai; Upolu), 53, 181, 1874, pp. 172, 200; *Layard, P. Z. S.* 1875, p. 439 (Fiji); *Whitmee, Ibis*, 1875, p. 446 (Samoa); *Layard, Ibis*, 1876, p. 393 (Fiji Islands); *id. P. Z. S.* 1876, p. 496 (Samoa); *Cab. & Reichen. J. f. O.* 1876, p. 326 (Fiji); *Hartl. Vög. Madag.* p. 339 (1877: Mauritius); *id. Ibis*, 1877, p. 336 (Mauritius); *W. A. Forbes, P. Z. S.* 1878, p. 127 (Raine Isl.); *Finsch, J. f. O.* 1878, p. 181; *Nehrk. J. f. O.* 1879, p. 408 (eggs); *Sel. P. Z. S.* 1880, p. 65 (New Britain); *E. L. & L. C. Layard, Ibis*, 1880, p. 232 (Loyalty Isl.); *L. C. Layard, t. c.*

p. 305 (New Britain); *W. A. Forbes, Voy. 'Challenger,'* ii. p. 92 (1880); *Tristr. Ibis*, 1882, pp. 140, 144 (S. Christoval); *Finsch, t. c.* p. 399 (Wanganui); *E. L. & L. C. Layard, t. c.* p. 536 (New (Caledonia), p. 544 (New Hebrides); *Finsch, Vög. der Südsee*, p. 21 (1884: New Britain; breeds); *Reichen. J. f. O.* 1891, p. 127 (Fiji).

Rallus forsteri, *Hartl. Arch. f. Nat.* 1852, p. 136; *id. J. f. O.* 1854, p. 169; *id. & Finsch, Orn. Centralpolyn.* p. 162 (1867); *iid. P. Z. S.* 1869, p. 544; *iid. P. Z. S.* 1871, p. 25 (Savai).

Hypotænidia pectoralis, *Reichenb. Av. Syst. Nat.* p. xxiii (1852); *Legge, B. Ceylon*, p. 776 (1880).

Hypotænidia philippensis, *Bp. C. R.* xliii. p. 599 (1856); *Schl. Mus. Pays-Bas*, Ralli, p. 23 (1865); *Gould, Handb. B. Austr.* ii. p. 334 (1865); *Ramsay, Ibis*, 1866, p. 335 (Port Denison); *Marie, Actes Soc. Linn. Bordeaux*, xxvii. p. 328 (1870); *Wald. Trans. Z. S.* viii. p. 95 (1872); *Pelz. Ibis*, 1873, p. 41; *Tweedd. Trans. Z. S.* ix. p. 231 (1875); *Salvad. Ann. Mus. Genov.* vii. p. 677 (1875), viii. p. 385 (1876: Bouru); *Tweedd. P. Z. S.* 1877, p. 702 (Monte Alban); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 199 (1877); *id. P. Z. S.* 1877, p. 344 (N.E. Queensland); *Layard, Ibis*, 1878, p. 263 (Huon Isl.); *Rosenb. Malay. Arch.* p. 278 (1878–79); *Meyer, Ibis*, 1879, p. 142 (Celebes); *Sel. Ibis*, 1880, p. 312; *Legge, B. Ceylon*, p. 776 (1880); *Salvad. Ann. Mus. Genov.* xviii. p. 319 (1882); *id. Orn. Papuasia etc.* iii. p. 261 (1882); *Blasius, J. f. O.* 1883, p. 139 (Celebes); *id. Zeitschr. ges. Orn.* iii. p. 162 (1886); *Ramsay, Tab. List Austr. B.* p. 21 (1888).

Hypotænidia etorques, *Bp. C. R.* xliii. p. 599 (1856, *ex Temm. MSS.*: Celebes).

Rallus etorques, *Temm. Mus. Lugd., teste Schl. Mus. Pays-Bas*, Ralli, p. 23 (1865).

Hypotænidia assimilis, *Bp. C. R.* xliii. p. 599 (1856).

Rallus hypotænidia, *Verr. et Des Murs; Rev. et Mag. de Zool.* 1860, p. 437 (New Caledonia).

Rallus rufopes, *Ellman, Zool.* 1861, p. 7470.

Rallina philippensis, *Wall. P. Z. S.* 1863, p. 36 (Bouru), p. 487 (Timor).

Rallus striatus, pt., *Finsch, Neu-Guinea*, p. 181 (1865).

Rallus (Eulabeornis) philippensis, *Martens, J. f. O.* 1866, p. 28.

Rallus hypoleucus, *Hartl. & Finsch, Faun. Centralpolyn.* p. 163 (1867); *iid. J. f. O.* 1870, p. 122; *iid. P. Z. S.* 1869, p. 545 (Tonga), 1871, p. 25.

Eulabeornis philippensis, *Gray, Hand-l. B.* iii. p. 57, no. 10377 (1871).

Eulabeornis assimilis, *Gray, t. c.* p. 57, no. 10380 (1871).

Eulabeornis hypoleucus, *Gray, t. c.* p. 57, no. 10386 (1871).

Eulabeornis etorques, *Gray, t. c.* p. 57, no. 10379 (1871).

Rallus pictus, *Potts, Ibis*, 1870, p. 36 (Westland, N. Z.); *id. Trans. N. Z. Inst.* iv. p. 202 (1871); *id. Ibis*, 1872, p. 37; *id. Trans. N. Z. Inst.* v. p. 199, pl. xviii. (1872).

Hypotænidia australis, *Pelz. Ibis*, 1873, p. 43; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 209 (1877), iii. p. 40 (1878).

Rallus philippinensis, *Gulliv. P. Z. S.* 1875, p. 488.

? Hypotænidia striata, *Rosenb.* (*nec L.*) *Malay. Arch.* p. 373 (1878–79, Koor, Goram).

Adult male. General colour above ochraceous brown, all the feathers black, with ochraceous edgings, and spangled with white

spots on the feathers of the mantle and back; lower back and rump ochraceous brown, with black centres to the feathers, but no white spots; wing-coverts like the back, but more uniform, and with scarcely any spots on the lesser and median series, the greater series, however, having large white spots and intermediate bars of black; bastard-wing feathers black, chequered with white spots and bars; primary-coverts rufous, olive-brown at tip and banded with black; quills rufous, banded with black, and black at the tips, the first two primaries chequered on the outer web and barred on the inner web with white; secondaries blackish, externally and at the tips ochraceous brown, with numerous ovate spots or bars, the innermost secondaries ochraceous brown, with broad black centres resembling the back; tail-feathers ochraceous brown centred with black; crown of head olive-brown, with black longitudinal spots to the feathers; the hinder neck ferruginous, mottled with blackish centres to the feathers, which are edged with olive-brown, obscuring the rufous; lores and a broad band through the eye dusky brown, becoming rufous on the ear-coverts and extending to the sides of the neck, where it is a little brighter rufous; over the lores a white band extending above the eye, and continued in a broad band of light ashy grey above the ear-coverts and extending to the sides of the nape; cheeks light ashy grey, extending over the fore neck, which is washed with brown; fore part of the cheeks and throat white; remainder of under surface white, with black bars, very distinct, but narrow on the sides of the fore neck, broader and more regular on the sides of the body, where the feathers have olive-brown tips; the flank-feathers distinctly barred with black and white, the black bands being the broader; feathers at the sides of the vent tawny buff, black at the base, and barred with white; the long under tail-coverts black, with white bars, tawny buff at the ends, the lower coverts tawny buff, with black bases; thighs tawny buff, dusky brown behind; under wing-coverts black, broadly edged with white; axillaries black, barred across with white: "bill warm-brown; feet and claws light greyish brown; iris Indian-red" (*A. H. Everett*). Total length 11·5 inches, culmen 1·25, wing 5·7, tail 2·65, tarsus 1·55, middle toe and claw 1·85.

I am unable to separate *H. australis*, Pelz., from Australia, or *H. assimilis*, Gray, from New Zealand, from true *H. philippinensis*. At the same time I must admit that there is a considerable amount of variation in the plumage, which it is difficult to account for.

The nestlings, according to Sir Walter Buller, are covered with black down. The next stage is illustrated by a specimen in Mr. Rothschild's collection, which shows the brown plumage to be much less spotted with white, and this is also borne out by full-grown young birds; so that we may safely argue that profuse white spotting is a sign of age, and that its extreme development is a sure sign of a very old bird. The under surface of the nestling is fulvescent, with dusky blackish bars on the sides of the body, and a distinct shade of orange-buff on the lower throat and fore neck. The full-grown young bird is rather lighter below, the centre of the breast and

abdomen being white, with scarcely any dusky cross bars, which are, however, more distinct on the sides of the body. There is a distinct indication of an orange-buff band on the fore neck. As every young bird in the collection carries this orange-buff band on the throat, it is evident that it is to some extent a sign of immaturity. The next stage is shown by a Philippine specimen, which has nearly completed its moult, and here we find that the lower throat, above the orange band, is barred with black and white. This is apparently the next definite stage of the plumage, and then gradually, as the bird gets older, it loses the orange band altogether. The large majority of Australian birds possess a broad præpectoral band, and I have never seen a single specimen which had absolutely lost all trace of the orange, as is the case with the majority of the Philippine and Fijian specimens. It is probable that in the last two localities the loss of the præpectoral band is as much a feature of the species as its development is characteristic of the Australian form. Yet there is no reason for separating the species into races, because there is absolutely no character by which these differences can be defined. Some birds are darker, especially on the flanks, some are lighter, some have spots and some bars on the hind neck; but I believe that these differences could be easily accounted for by age, and perhaps a little variation in plumage takes place according to season.

Hab. Indo-Malayan Islands from the Philippines to Celebes, and throughout the Moluccas to Australia, New Zealand, and the Pacific Islands.

a–d. ♂ ad. et juv. sk.	Monte Alban, Luzon, Feb., March (*A. H. Everett*).	Tweeddale Coll.
e. Ad. sk.	Celebes.	Tweeddale Coll.
f. Ad. sk.	Celebes.	Gould Coll.
g, h. ♂ ad.; *i, j.* Juv. sk.	Macassar.	Wallace Coll.
k. ♂ juv. sk.	Bouru.	Wallace Coll.
l. ♂ ad. sk.	East Timor.	Wallace Coll.
m, n. ♂ ad.; *o.* ♀ juv. sk.	Raine Island, Torres Straits.	Voy. H.M.S. 'Challenger.'
p. Ad. sk.	Channel Rock, Torres Straits, June (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
q. Ad. sk.	Australia.	A. Cunningham, Esq. [P.].
r, s. Ad. sk.	Australia.	Sir D. Cooper [P.].
t, u. Ad. sk.	Australia.	Gould Coll.
v. Ad. st.	Australia.	Lady Carrington [P.].
w. Ad. sk.	Queensland.	Mrs. Simpson [P.].
x, y, z. Ad. sk.	Queensland (*J. T. Cockerell*).	Salvin-Godman Coll.
a', b'. Ad. sk.	South Queensland.	Tweeddale Coll.
c'. ♀ ad. sk.	Morton Island, Oct. 19 (*J. McGillivray*).	Voy. H.M.S. 'Rattlesnake.'
d'. Ad. sk.	Port Albany (*C. Coxen*).	Tweeddale Coll.
e'. Ad. sk.	Port Essington.	J. B. Jukes, Esq. [P.].
f'. Ad. sk.	South Australia.	Sir G. Grey [P.].
g', h'. Ad. sk.	South Australia.	C. D. E. Fortnum, Esq. [P.].

i'. ♂ ad. sk.	Island in Foveaux Straits, New Zealand.	Capt. Stokes [P.].
k'. Ad. sk.	New Zealand.	Colonial Museum [P.].
l'. Ad. sk.	New Zealand.	Miss R. Stone [P.]. (Type of *R. assimilis*.)
m'. Ad. sk.	New Zealand.	Sir G. Grey [P.].
n'. Ad. sk.	Kabahadui, New Britain.	Rev. G. Brown [C.].
o'. Ad. sk.	Samoa.	Rev. J. B. Stair [P.].
p'. Ad. sk.	Samoa.	Rev. J. S. Whitmee [C.].
q', *r'*. Ad. sk.	Samoa.	J. Gould, Esq.
s', *t'*. ♀ ad. sk.	Ovalau, Fiji, July (*F. M. Rayner*).	Voy. H.M.S. 'Herald.'
u'–*w'*. ♀ ad. sk.	Ovalau, Oct.–Dec. (*E. L. Layard*).	Tweeddale Coll.
x'. Skeleton.	Australia.	Purchased.
y'. Skull.	Cape York.	Voy. H.M.S. 'Rattlesnake.'

Subsp. α. Hypotænidia macquariensis.

Rallus macquariensis, *Hutton*, *Ibis*, 1879, p. 454 (Macquarie Island): *Sel. P. Z. S.* 1881, p. 968; *Buller*, *B. N. Zeal.* 2nd ed. ii. p. 95, note (1888).

Adult. Similar to *H. philippinensis*, but almost unspotted on the back; underneath dingy grey, with the pectoral band maroon in the centre instead of being entirely orange. Total length 10 inches, culmen 1·4, wing 5·15, tail 2, tarsus 1·55, middle toe and claw 1·8.

Hab. Macquarie Island.

a, *b*. ♂ ♀ ad. sk.	Macquarie Island.	P. L. Sclater, Esq. [P.].

4. Hypotænidia torquata.

Le Rasle à collier des Philippines, *Briss. Orn.* v. p. 170, pl. 15. fig. 1 (1760).

Rallus torquatus, *Linn. Syst. Nat.* i. p. 262 (1766); *Gm. Syst. Nat.* i. p. 714 (1788); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 552 (1819); *Meyen*, *N. Acta Acad. C. L.-C. Cur.* xxvi. *Suppl.* i. p. 108, pl. 19 (1834).

Le Tiklin à collier, *Buff. Hist. Nat. Ois.* viii. p. 162 (1781).

Banded Rail, *Lath. Gen. Syn.* iii. pt. I, p. 233 (1785).

Rallus lineatus, *Less. Traité*, p. 536 (*ex Cuv. MSS. in Mus. Paris*): *Pucher. Rev. et Mag. de Zool.* 1851, p. 276.

Eulabeornis torquatus. *Gray*, *Gen. B.* iii. p. 595 (1846); *id. Hand-l. B.* iii. p. 57, no. 10375 (1871).

Hypotænidia torquata, *Bp. C. R.* xliii. p. 599 (1856); *Schl. Mus. Pays-Bas*, Ralli, p. 22 (1865); *Pelz. Ibis*, 1873, p. 43; *Walden*, *Tr. Z. S.* ix. p. 31 (1875); *Tweedd. P. Z. S.* 1877, p. 702 (Luzon), p. 768 (Cebu), p. 831 (Butuan); *id. P. Z. S.* 1878, p. 114 (Dinagat), p. 288 (Negros), p. 345 (S. Leyte).

Adult male. General colour above olive-brown, a little more dingy on the lower back, rump, and upper tail-coverts, with slight indications of blackish cross bars on the rump; wing-coverts like the back, a little more ruddy brown on the greater series; bastard-wing blackish, externally olive-brown, spotted on the outer web and barred on the inner web with white; primary-coverts and quills reddish brown, the coverts and primaries chequered with dusky markings on the outer web, the inner web dusky brown, with reddish mottled bars; the innermost secondaries olive-brown, like the back; tail-feathers olive-brown, with a ruddy brown tinge; crown of head like the back, the forehead rather more grey; lores and feathers round the eye black, extended into a broad black band, which reaches the sides of the nape; sides of face and throat also black, with a broad longitudinal band of white crossing the sides of the face and ear-coverts; chin greyish; remainder of under surface of body from the lower throat downwards profusely barred with black and white, the black bars being the broader and the white ones the narrower; vent and under tail-coverts somewhat tinged with reddish brown; across the chest a broad band of rich maroon-chestnut; under wing-coverts and axillaries barred with black and white, exactly like the breast; quills reddish brown below, barred with white on the inner webs of the primaries, each white bar bordered with a black line: "bill black; feet and legs brown; iris light blood-red" (*A. H. Everett*). Total length 11 inches, culmen 1·5, wing 6, tail 2·3, tarsus 1·9, middle toe and claw 1·9.

Adult female. Similar to the male in colour: "iris bright Indian-red or crimson" (*A. H. Everett*). Total length 11 inches, culmen 1·4, wing 5·8, tail 2·35, tarsus 1·9, middle toe and claw 1·9.

Young. Duller brown than the adult, and distinguished by its white throat and olive-brown chest-band, the sides of the vent and under tail-coverts reddish brown, bordered with black.

Hab. Philippine Islands.

a. Ad. sk.	Philippines.	Hugh Cuming [C.].
b, c. Ad. sk.	Philippines.	Gould Coll.
d. Ad. st.	Luzon.	E. Wilson, Esq. [P.].
e, f. ♀ ad. et imm. sk.	Luzon, Jan. (*A. B. Meyer*).	Tweeddale Coll.
g-i. ♂ ad.; *k, l.* ♀ ad. sk.	Monte Alban, Feb., March (*A. H. Everett*).	Tweeddale Coll.
m, n. ♂ ad. et juv. sk.	Marinduque, May.	E. L. Moseley, Esq. [C.].
o, p. ♂ ♀ ad. sk.	Cebu, March, April (*A. H. Everett*).	Tweeddale Coll.
q. ♀ ad. sk.	Valencia, Negros, Aug. (*A. H. E.*).	Tweeddale Coll.
r, s. ♂ ♀ ad. sk.	Amparo, S. Leyte, July (*A. H. E.*).	Tweeddale Coll.
t. ♀ ad. sk.	Dinagat, July (*A. H. E.*).	Tweeddale Coll.
u. ♀ ad. sk.	Butuan, May (*A. H. E.*).	Tweeddale Coll.

5. Hypotænidia celebensis.

Rallus celebensis, *Quoy & Gaim. Voy. de l'Astrol., Zool.* i. p. 250, pl. 24. fig. 2 (1830); *Gray, List Grallæ Brit. Mus.* p. 116 (1844); *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 92 (1876).

Eulabeornis celebensis, *Gray, Gen. B.* iii. p. 595 (1840); *id. Hand-l. B.* iii. p. 57, no. 10376 (1871).

Hypotænidia celebensis, *Bp. C. R.* xliii. p. 599 (1856); *Schl. Mus. Pays-Bas*, Ralli, p. 22 (1865); *Walden, Trans. Z. S.* viii. p. 95 (1872: Menado, Gorontalo, Limbotto); *Pelz. Ibis*, 1873, p. 43; *Blasius, J. f. O.* 1883, p. 139; *id. Zeitschr. ges. Orn.* iii. p. 160 (1886).

Adult male. General colour above dark olive-brown, the feathers being dusky brown in the centre, with olive-brown margins; wing-coverts like the back, with a slight reddish tinge on the greater series; bastard-wing, primary-coverts and quills dusky brown, externally olive with a slight tinge of reddish; tail-feathers olive-brown with dusky centres; crown of head and nape dusky brown, darker than the back; lores and feathers round the eye black, continued in a broad black band to the sides of the nape; this black band skirted by an equally broad white one, which extends from the gape to the sides of the neck, traversing the ear-coverts; cheeks black, with a few indications of tiny white cross lines on the malar region; entire under surface of body black, crossed with numerous lines of white, a little less distinct on the throat; thighs grey posteriorly; under wing-coverts and axillaries exactly like the breast and barred in the same way. Total length 13·5 inches, culmen 1·55, wing 6, tail 2·15, tarsus 1·85, middle toe and claw 2.

Hab. Celebes.

a. Ad. st.	Celebes.	Leyden Museum.
b. Ad. st.	Celebes.	Edward Wilson, Esq. [P.].
c, d. Ad. sk.	Menado, Celebes.	Wallace Coll.
e, f. Ad. sk.	Menado, Celebes.	Gould Coll.
g, h. Ad. sk.	Menado, Celebes.	Tweeddale Coll.
i. Skeleton.	Celebes.	Dr. A. B. Meyer [C.].

6. Hypotænidia saturata.

? Hypotænidia celebensis (*nec Q. & G.*), *Salvad. Ann. Mus. Genov.* vii. p. 976 (1875).

Hypotænidia saturata, *Salvad. MSS., Scl. Ibis*, 1880, p. 310, note; *Salvad. Ann. Mus. Genov.* xviii. p. 319 (1882); *id. Orn. Papuasia etc.* iii. p. 260 (1882).

Adult. Similar to *H. celebensis* and fully as large, but distinguished by the absence of white cross lines on the throat, which is entirely black. Total length 13 inches, culmen 1·85, wing 5·9, tail 2·3, tarsus 2·15, middle toe and claw 2·25. (*Mus. W. Rothschild.*)

Hab. N.W. New Guinea and Salawati.

7. Hypotænidia sulcirostris.

Rallus sulcirostris, *Wallace, P. Z. S.* 1862, p. 346 (Sula Islands).
Eulabeornis sulcirostris, *Gray, Hand-l. B.* iii. p. 57, no. 10381 (1871).
Hypotænidia sulcirostris, *Salvad. Ann. Mus. Genov.* vii. p. 81 (1875); *Scl. Ibis*, 1880, p. 311, pl. vi. (fig. inacc.).

Adult (type of species). Similar to *H. celebensis*, and with the same facial markings as that species, but more uniform on the upper surface, and easily distinguished by its uniform black throat and fore neck. Total length 10·6 inches, culmen 1·55, wing 5·7, tail 2, tarsus 1·95, middle toe and claw 2.

Hab. Sula Islands.

a. Ad. sk.	Sula Islands.	Wal'ace Coll. (Type of species.)
b. Ad. sk.	Sula Islands.	Wallace Coll.

8. Hypotænidia insignis.

Rallus insignis, *Scl. P. Z. S.* 1880, p. 66, pl. viii.; *Finsch, Ibis*, 1881, p. 540.
Hypotænidia insignis, *Scl. Ibis*, 1880, p. 312; *Salvad. Ann. Mus. Genov.* xviii. p. 319 (1882); *id. Orn. Papuasia etc.* iii. p. 261 (1882).

Adult female (type of species). General colour above dusky olive-brown, slightly more reddish on the rump and upper tail-coverts; wing-coverts like the back, the outer greater coverts tinged with rufous like the inner secondaries; bastard-wing and primary-coverts blackish, externally reddish brown like the secondaries; primaries black, with white spots on the outer webs and white bars on the inner ones; tail-feathers blackish; crown of head and hind neck as well as the entire sides of face and sides of neck reddish brown with a tinge of olive; malar line black, with narrow white cross bars, like the under surface of the body; the lower abdomen, vent, and under tail-coverts black; the lower flanks also very faintly barred with white; thighs blackish brown. Total length 12 inches, culmen 1·65, wing 5·4, tail 2, tarsus 2·3, middle toe and claw 2·3.

Hab. New Britain.

a. ♀ ad. sk.	Kahabadai, New Britain, Feb.	Rev. G. Brown [C.]. (Type of species.)

4. CABALUS.

	Type.
Cabalus, *Hutton, Trans. N. Zeal. Inst.* vi. p. 108 (1873).	C. dieffenbachii.

Range. Confined to the Chatham Islands, and Lord Howe Island.

Key to the Species.

a. Plumage variegated; throat grey, separated from the tawny breast by a thickly banded patch of black; breast also banded with black; lower breast and abdomen black barred with white ..... *dieffenbachii* ad., p. 47.

b. Plumage uniform; reddish above, greyer below, with some reddish brown on the chest, but no cross bars on the flanks; quills rufous with narrow blackish bars.. *sylvestris*, p. 48.

c. Plumage uniform dusky brown above; underneath greyish, the flanks with fulvescent bars; quills dusky with fulvous bars ..... *dieffenbachii* juv., p. 48.

1. Cabalus dieffenbachii. (Plate VI.)

Rallus dieffenbachii, *Gray, in Dieffenb. Trav. N. Zeal.* ii. App. p. 197 (1843); *id. List Gralle Brit. Mus.* p. 117 (1844); *Finsch, J. f. O.* 1870, p. 355, 1872, p. 182, 1874, p. 200; *Hutton, Ibis*, 1872, p. 247; *Buller, B. N. Zeal.* p. 179, pl. 20. fig. 2 (1873); *id. Ibis*, 1874, p. 117; *Finsch, J. f. O.* 1878, p. 182.

Ocydromus dieffenbachii, *Gray, Voy. 'Erebus' & 'Terror,' Birds*, p. 14, pl. 15 (1846); *id. Gen. B.* iii. p. 596 (1846); *id. Hand-l. B.* iii. p. 56, no. 10368 (1871).

Hypotænidia dieffenbachii, *Bp. C. R.* xliii. p. 599 (1856); *Gray, Ibis*, 1862, p. 238.

Rallus modestus (= juv.), *Hutton, Ibis*, 1872, p. 247, 1873, pp. 349–352; *id. Tr. N. Zeal. Inst.* v. p. 223 (1873).

Cabalus modestus, *Hutton, Tr. N. Zeal. Inst.* v. p. 217 (1873); *Travers, t. c.* p. 217 (Mangare); *Hutton, ibid.* vi. p. 108 (1874); *Buller, B. N. Zeal.* 2nd ed. ii. p. 123 (1888); *Forbes, Bull. Brit. Orn. Club*, no. iv. p. xx (Dec. 1892); *Salvad. op. cit.* v. p. xxiii (Jan. 1893).

Cabalus dieffenbachii, *Sharpe, Voy. 'Erebus' & 'Terror,' Birds*, p. 29, pl. xv. (1875); *Buller, B. N. Zeal.* 2nd. ed. ii. p. 121 (1888).

Adult (type of species). General colour above brown, banded on the mantle and scapulars, and spotted on the upper back, with ochreous buff, these buff markings being margined with black, which takes the form of broad bars on the mantle; lower back and rump uniform brown; upper tail-coverts brown, barred across with light rufous and black; lesser wing-coverts like the back; median and greater coverts, as well as the primary-coverts and quills, light chestnut, barred with black, the innermost secondaries spotted and barred with ochre and black, like the back; tail-feathers brown, mottled with chestnut near the base; crown of head and nape uniform brown, followed by an indistinct patch of chestnut on the hind neck; lores dull rufous, surmounted by a broad line of bluish grey, extending from the base of the nostrils to the sides of the nape; rest of the sides of the face bluish grey, extending on to the lower throat; this grey area of the face separated from the grey eyebrow by a broad band of dark chestnut, which extends from the lores through the eye along the upper part of the ear-coverts; chin and upper throat white; lower throat black, barred across with white; fore neck and chest ochreous buff, banded rather narrowly

with black, this pattern of coloration extending up the sides of the neck to the chestnut on the ear-coverts; lower breast and abdomen black, banded with white, the light bars on the flanks and vent-feathers being tinged with ochreous; under tail-coverts broadly banded with black and ochre; under wing-coverts and axillaries blackish, barred with white; under surface of quills chestnut with broad black bars. Total length 11·5 inches, culmen 1·35, wing 4·8, tail 2·7, tarsus 1·45, middle toe and claw 1·8.

Young male. General colour above dark chocolate-brown, with a shade of more fulvous brown on the mantle and upper back, the head rather more dusky; wing-coverts like the back, long and fluffy, and having slight indications of whitish bars; primary-coverts and outer primaries dusky brown, barred or notched with sandy buff, the rest of the quills chocolate-brown, dusky on their inner webs; sides of face dark brown like the head, with a faint ashy shade, the cheeks and throat more distinctly ashy grey; lower throat and fore neck brown, becoming more dusky on the breast and sides of body, and inclining to dark ashy on the lower abdomen and flanks; fore neck faintly barred with sandy buff, these bars more distinct on the sides of the breast and sides of the body; under wing-coverts and quill-lining dusky blackish, with a few fulvous spots on the former, the primaries being notched and barred as on the upper surface. Total length 7 inches, culmen 1·5, tarsus 1·1.

Hab. Chatham Islands.

a. Ad. sk.	Chatham Islands.	New Zealand Company [P.]. (Type of species.)
b. ♂ juv. sk.	Mangare, Chatham Islands, June 1 (*W. Hawkins*).	H. O. Forbes, Esq.

2. Cabalus sylvestris.

Ocydromus sylvestris, *Scl. P. Z. S.* 1869, p. 472, pl. xxxv.; *Bennett, P. Z. S.* 1869, p. 471; *Gray, Hand-l. B.* iii. p. 56, no. 10367 (1871); *Buller, Trans. N. Z.* x. p. 216 (1877); *Meyer, Abbild. Vog.-Skel.* pts. iv., v. p. 32, Taf. xli. (1883); *Etheridge, Lord Howe Isl.* p. 17 (1889); *North, Rec. Austr. Mus.* i. p. 37, pl. i. fig. 3 (1890, nesting).
Cabalus sylvestris, *Sharpe, Buil. Brit. Orn. Club*, no. v. p. xxx (Jan. 1893).

Adult (type of species). General colour above uniform reddish olive-brown; primary-coverts and quills rufous, barred with dusky brown, the adjacent greater coverts partaking the same colour as the quills; tail-feathers brown, more or less rufous near the base, with dusky bars; head a little more dusky than the back; lores, eyebrow, sides of face, and throat ashy grey; remainder of under surface light ashy brown, with a few scattered fulvous spots; under tail-coverts rufous barred with black; under wing-coverts rufous, with dusky black bars; quills brighter rufous with narrow dusky bars. Total length 12 inches, culmen 1·95, wing 5·3, tail 2·3, tarsus 1·8, middle toe and claw 2.

Hab. Lord Howe Island.

a. Ad. sk.	Lord Howe Island.	Gould Coll. (Type of species.)

5. EULABEORNIS.

Type.
Eulabeornis, *Gould, P. Z. S.* 1844, p. 56 ..... E. castaneiventris.

Range. Northern Australia and the Aru Islands; Solomon Islands; Fiji Islands.

Key to the Species.

a. Under wing-coverts uniform vinous like the breast, without spots; quills uniform below. *castaneiventris*. p. 49.
b. Under wing-coverts black, barred with white.
a'. Quills barred with chestnut and black.... *pœciloptera*, p. 50.
b'. Quills black, with few white spots or bars. *woodfordi*, p. 50.

1. Eulabeornis castaneiventris.

Eulabeornis castaneiventris, *Gould, P. Z. S.* 1844, p. 56 (N. Australia); *id. B. Austr.* vi. pl. 78 (1844); *Gray, Gen. B.* iii. p. 596 (1846); *Reichenb. Handb., Fulicar.* Taf. cxxiii. figs. 1211–14 (1852); *Bp. C. R.* xliii. p. 600 (1856); *Gray, P. Z. S.* 1858, pp. 198, 198 (Aru Islands); *id. Cat. B. New Guinea*, pp. 52, 63 (1859); *id. P. Z. S.* 1861, p. 438 (Louisiade Isl.); *Rosenb. Nat. Tijdschr. Nederl. Ind.* xxv. p. 255 (1863); *id. J. f. O.* 1864, p. 282 (New Guinea); *Finsch, Neu-Guinea*, p. 181 (1865); *Gould, Handb. B. Austr.* ii. p. 338 (1865); *Rosenb. Reis naar Zuidoostereil.* p. 53 (1867); *Gray, Hand-l. B.* iii. p. 56, no. 10369 (1871); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 193 (1876), ii. p. 199 (1877); *Rosenb. Malay. Arch.* p. 373 (1878–79: Aru); *Meyer, Verh. z.-b. Gesellsch. Wien*, xxiii. p. 773 (1873); *Salvad. Ann. Mus. Genov.* xviii. p. 320 (1882); *id. Orn. Papuasia etc.* iii. p. 267 (1882); *Meyer, Zeitschr. ges. Orn.* i. p. 294, pl. 17. fig. 3 (1884: egg); *Ramsay, Tab. List Austr. B.* p. 21 (1888); *Salvad. Agg. Orn. Papuasia*, iii. p. 196 (1891).
Rallina castaneiventris, *Schl. N. T. D.* iii. p. 349 (1866).

Adult female. General colour above dark ochraceous brown, with somewhat of a rufous tinge on the lower back, rump, and upper tail-coverts; wing-coverts like the back; primary-coverts and quills reddish brown, somewhat olivaceous externally; tail-feathers dull reddish brown, more chestnut below; crown of head and entire sides of face clear slaty grey; chin whitish, shading into pale vinous on the throat, which passes into vinous chestnut on the lower throat, fore neck, and rest of under surface; the abdomen and vent somewhat paler vinous; thighs greyish externally; under tail-coverts, as well as the under wing-coverts and axillaries, deep chestnut: "bill yellow at the base, horn-coloured at the tip; legs and feet brown" (*J. Gould*). Total length 17 inches, culmen 2·2, wing 8·5, tail 4·7, tarsus 2·75, middle toe and claw 2·7.

Hab. North Australia and the Aru Islands.

a. Ad. sk. Aru Islands. Wallace Coll.
b-i. Ad. sk. [Aru Islands] (*J. T. Cockerell*). Salvin-Godman Coll.

2. Eulabeornis pœciloptera.

Rallina pœciloptera, *Hartl. Ibis*, 1866, p. 171 (Viti Levu); *Finsch & Hartl. Faun. Centralpolyn.* p. 156, tab. 12. fig. 1, tab. iii. fig. 4 (egg) (1867); *Layard, P. Z. S.* 1875, p. 438; *id. Ibis*, 1876, p. 155 (Rewa), p. 393 (Viti Levu); *Reichen. J. f. O.* 1891. p. 127; *Wiglesw. Abhandl. k. Zool. Mus. Dresden*, no. vi. p. 60 (1891).
Eulabeornis pœciloptera, *Gray, Hand-l. B.* iii. p. 57, no. 10387 (1871).

Adult male. General colour above brown; the scapulars like the back; lower back, rump, and upper tail-coverts also brown; wing-coverts like the back, but a little more rufescent; greater coverts chestnut, barred with rufous and black; bastard-wing feathers blackish, externally washed with rufous brown and with distinct bars of light chestnut; primary-coverts uniform rufous brown; quills chestnut, with broad blackish ends and broadly barred with blackish on the inner web and chequered with black and rufous bars on the outer web; the inner secondaries like the back; tail-feathers reddish brown, blackish in the centre: head ruddy brown from the centre of the crown to the hind neck; forehead dull slaty grey, as also the lores; sides of face and ear-coverts, the sides of the hinder crown, and the entire cheeks and sides of neck slaty grey; chin and throat white, the latter washed with slaty grey; the rest of the under surface, from the fore neck downwards, darker slaty grey: sides of body and flanks blackish, as also the under tail-coverts; thighs dark slate-colour; the shafts of the breast-feathers whitish; under wing-coverts and axillaries black, barred with white; under surface of quills rufous, barred with black: "bill orange and yellow; feet yellow; iris light brown" (*E. L. Layard*). Total length 13 inches, culmen 1·8, wing 6·8, tail 3·1, tarsus 2·55, middle toe and claw 2·4.

Adult female. Similar to the male in colour. Total length 14 inches, culmen 1·8, wing 6·4, tail 2·6, tarsus 2·25, middle toe and claw 2·15.

Hab. Fiji Islands: Ovalau and Viti Levu.

a. Ad. st.	Fiji Islands.	Purchased.
b, c. ♂ ♀ ad. sk.	Korotumba, Viti Levu, Nov. 2 (*E. L. Layard*).	Tweeddale Coll.
d. ♀ ad. sk.	Ovalau, Jan. 16 (*E. L. Layard*).	Tweeddale Coll.

3. Eulabeornis woodfordi. (Plate VII.)

Rallina woodfordi, *Ogilvie Grant, Ann. & Mag. Nat. Hist.* (6) iv. p. 320 (1889); *Salvad. Agg. Orn. Papuasia*, iii. p. 196 (1891).

Immature (type of species). General colour above dark chocolate-brown, the groundwork of the feathers being black; wings browner than the back; bastard-wing black, with white spots or bars on the inner web; quills black, externally chocolate-brown, with white spots on the inner web of the latter, decreasing in number on the secondaries; tail-feathers black, externally chocolate-brown; head

sooty brown, with a distinct shade of dark slaty grey on the eyebrow; lores and feathers below the eye and ear-coverts black; cheeks also black, with a slaty-grey shade along the malar line; chin whitish, the throat becoming ashy black; remainder of under surface of body black, with a slight ashy shade on the breast; the sides of the body washed with chocolate-brown; under wing-coverts black, barred or spotted with white; axillaries black: "bill black; feet grey: iris red" (*C. M. Woodford*). Total length 14·5 inches, culmen 1·6, wing 6·8, tail 2·8, tarsus 2·35, middle toe and claw 2·2.

Hab. Solomon Islands.

a. Imm. sk. Aola, Guadalcanar. C. M. Woodford, Esq. [C.]
(Type of species.)

6. TRICHOLIMNAS.

Type.

Tricholimnas, *Sharpe, Bull. Brit. Orn. Club*, no. v. (Jan. 1893, p. xxviii) ..... T. lafresnayanus.

Range. Confined to New Caledonia.

1. Tricholimnas lafresnayanus.

Gallirallus lafresnayanus, *Verr. et Des Murs, Rev. et Mag. de Zool.* 1860, p. 437; *Jouan, Mém. Soc. Cherb.* ix. p. 246 (1863); *Finsch, J. f. O.* 1873, p. 403; *Marie, Actes S. L. Bord.* xxvii. p. 328 (1870); *id. Ibis*, 1877, p. 363.

Eulabeornis lafresnayanus, *Gray, Hand-l. B.* iii. p. 56, no. 10370 (1871); *id. Cruise of 'Curaçoa,'* pl. xxi. (1873); *E. L. & L. C. Layard, Ibis*, 1882, p. 535 (New Caledonia); *Wiglesw. Abhandl. k. Zool. Mus. Dresden*, no. vi. p. 60 (1891).

Ocydromus lafresnayanus, *Giebel, Thes. Orn.* ii. p. 230 (1875); *Buller, Tr. N. Z. Inst.* x. p. 216 (1877).

Adult male. General colour above brown, with a slight shade of olive on the scapulars; lower back, rump, upper tail-coverts, and tail dusky blackish, washed with dull rufous brown; wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish, externally rufous brown, which colour is much more distinct on the secondaries; crown of head for the most part dusky ashy, especially on the forehead and sides of the crown; nape decidedly browner, and gradually verging into dark chocolate on the hind neck; lores dusky, with a narrow supraloral streak of isabelline; ear-coverts brown; cheeks and throat light ashy grey; sides of neck brown; rest of under surface of body dark slaty grey, washed with brown on the fore neck, chest, and sides of body; flanks dark chocolate-brown; thighs slaty grey; under tail-coverts chocolate-brown; under wing-coverts and axillaries black, barred across with white; quills below blackish; secondaries rufescent on the lower surface. Total length 17 inches, culmen 2·5, wing 8, tail 4·2, tarsus 2·4, middle toe and claw 2·5.

Adult female. Similar to the male in colour, but smaller, the bill being conspicuously so. Total length 14·5 inches, culmen 1·9, wing 7·5, tail 4, tarsus 2·35, middle toe and claw 2·35.

Young. Differs from the adult in being almost entirely black, with a shade of chocolate-brown on the back and sides of neck, the under surface being somewhat more slaty black; head and throat more slaty grey, with a patch of orange-brown on the fore neck: "bill and legs dark brown; iris crimson" (*E. L. Layard*).

Hab. New Caledonia.

a. ♂ ad.; *b*. ♀ ad. sk.	New Caledonia.	M. Verreaux.
c. ♀ juv. sk.	Boulai, New Caledonia, Dec. 16 (*E. L. Layard*).	Tweeddale Coll.

7. GYMNOCREX.

	Type.
Gymnocrex, *Salvad. Ann. Mus. Genov.* vii. p. 678 (1875)	G. rosenbergi.
Schizoptila, *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 94 (1876)	G. rosenbergi.

Range. Celebes, Molucca Islands (Morotai, Halmahéra), Mysol, Aru Islands, Southern New Guinea, Solomon Islands. ? New Ireland.

1. Gymnocrex rosenbergi.

Rallina rosenbergii, *Schl. N. T. D.* iii. p. 212 (1866: Kema, Celebes): *id. Mus. Pays-Bas*, Ralli, Index, p. 78.

Eulabeornis rosenbergii, *Gray, Hand-l. B.* iii. p. 57, no. 10382 (1871).

Rallina (?) rosenbergii, *Walden, Trans. Z. S.* viii. p. 96 (1872).

Gymnocrex rosenbergii, *Salvad. Ann. Mus. Genov.* vii. p. 678 (1875: Menado).

Schizoptila rosenbergii, *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 94 (1876).

Adult. Lores, region round the eye, and a large space behind the latter bare; sides of head and neck, as well as the lower parts, greyish black; tail, with the rump and upper tail-coverts, deeper black; wings, back, mantle, and upper part of neck dark reddish brown and purplish, inclining to brownish buff on the larger quills; upper part of head blackish; lower wing-coverts blackish, with a large whitish patch at the end of each feather: "bill and bare skin round the eye pale greenish yellow; feet greenish grey; iris brownish red" (*Von Rosenberg*). Total length 6·9 inches, tail 3·1, bill from gape 2·1, tarsus 2·8. (*Schlegel.*)

Hab. Celebes.

2. Gymnocrex plumbeiventris.

Rallus plumbeiventris, *Gray, P. Z. S.* 1861, pp. 432, 438; *Finsch, Neu-Guinea*, p. 180 (1865).

Rallina plumbeiventris, *Schl. Mus. Pays-Bas*, Ralli. pp. 17, 78 (1865); *id. Nederl. Tijdschr. Dierk.* iii. p. 349 (1866); *Gray, Hand-l. B.* iii. p. 58, no. 10402 (1871); *Sharpe, Journ. Linn. Soc.* xiii. p. 505 (1877).

Rallus hoeveni, *Rosenb. MSS.*; *Schl. Nederl. Tijdschr. Dierk.* iii.

p. 349 (1866); *Rosenb. Nat. Tijdschr. Nederl. Ind.* xxix. p. 144 (1867); *id. Reis naar Zuidoostereil.* p. 53 (1867).

Rallus intactus, *Scl. P. Z. S.* 1869, p. 120, pl. x.; *Tristr. Ibis*, 1882, p. 144; *Ramsay, Proc. Linn. Soc. N. S. W.* vii. p. 33 (1882).

Rallina intacta, *Gray, Hand-l. B.* iii. p. 58, no. 10404 (1871).

Gymnocrex plumbeiventris, *Salvad. Ann. Mus. Genov.* vii. p. 793 (1875); *D'Albert. & Salvad. op. cit.* xiv. p. 129 (1879); *Salvad. op. cit.* xvii. p. 320 (1882); *id. Orn. Papuasia*, iii. p. 268 (1882); *Meyer, Zeitschr. ges. Orn.* i. p. 295 (1884); *Sharpe in Gould's B. New Guinea*, v. pl. 71 (1888); *Salvad. Agg. Orn. Papuasia*, iii. p. 196 (1891).

Adult (type of species). General colour above ochraceous olive-brown, the lower back, rump, upper tail-coverts, and tail black; wing-coverts ochraceous brown like the back; bastard-wing, primary-coverts, and quills rufous, shaded with olive-brown at the tips; secondaries olive-brown, slightly rufescent in the middle, the innermost secondaries like the back; entire head and neck as far as the mantle on the upper surface, and as far as the chest on the lower surface, vinous chestnut, paler on the throat; breast and remainder of under surface leaden grey, blacker on the lower flanks and under tail-coverts; under wing-coverts and axillaries black, with large ovate spots of white: "bill black, greenish at the base; feet coral-red; iris red" (*D'Albertis*). Total length 13 inches, culmen 2·1, wing 7·2, tail 2·8, tarsus 2·1, middle toe and claw 2.

Several specimens have the throat whitish, with chestnut tips to the feathers, whereas in a few individuals the throat is perfectly uniform. The abdomen is blackish in many specimens. Young birds appear to have the abdomen mixed with rufous.

Hab. Moluccа Islands (Halmahéra, Morotai), New Guinea, Mysol, Aru Islands, Solomon Islands. ? New Ireland.

a. Ad. sk.	Morotai or Morty Island.	Wallace Coll. (Type of species.)
b–e. Ad.; *f.* Juv. sk.	[Aru Islands] (*J. T. Cockerell*).	Salvin-Godman Coll.
g. Ad. sk.	Port Moresby, S.E. New Guinea.	C. Hunstein [C.].
h. Ad. sk.	Solomon Islands (*L. Brazier*).	P.L.Sclater,Esq.[P.]. (Type of *R. intactus.*)

8. ARAMIDES *

	Type.
Aramides, *Pucher. Rev. Zool.* 1845, p. 277	A. cayanea.
Ortygarchus, *Cab. in Schomb. Reis. Brit. Guian.* iii. p. 759 (1848).....	A. cayanea.

Range. Confined to the Neotropical region.

* ARAMIDES PLUMBEICOLLIS.

Aramides plumbeicollis, *Zeledon, Anales Mus. Nac. Costa Rica*, i. p. 131 (1887), ii. p. 3 (1888).

Hab. Costa Rica.

This species is unknown to me.

Key to the Species.

a Quill-lining rufous.
a'. Breast chestnut, or vinous, or ruddy brown.
a''. No grey on the throat or fore neck.
a'''. Crown of head and hind neck grey.
a[1]. Smaller; tarsus 2 inches: under surface light rufous; thighs pale ashy; under wing-coverts black, with some white and rufous cross bars; abdomen ashy ..... *mangle*, p. 54.
b[1]. Larger; tarsus 2·8 inches: under surface ruddy brown, washed with olive; fore neck dusky vinous; thighs reddish brown or slaty black; under wing-coverts chestnut, with a few black bars; abdomen black ..... *wolfi*, p. 55.
b'''. Crown of head and hind neck rufous; mantle clear bluish grey; throat and breast chestnut; under wing-coverts blackish, with white bars ..... *axillaris*, p. 56.
b''. With grey on the throat and fore neck.
c'''. Chin and upper throat white; lower throat only blue-grey; fore neck chestnut like the breast ..... *gutturalis*, p. 57.
d'''. Throat white; fore neck grey.
c[1]. Smaller: breast orange-rufous or chestnut; abdomen and vent dusky blackish ..... [pp. 57–59. *cayanea* and allies,
d[1]. Larger: breast pale vinous; lower abdomen and vent pearly grey .... *ypacaha*, p. 60.
b'. Under surface entirely slaty grey; throat white; no rufous on breast ..... *saracura*, p. 61.
b. Quill-lining not rufous; under wing-coverts black, broadly tipped with white ..... *calloptcrus*, p. 62.

1. Aramides mangle.

Gallinula mangle, *Spix, Av. Bras.* ii. p. 74, Taf. 97 (1825).
Rallus mangle, pt., *Gray, List Gallæ Brit. Mus.* p. 115 (1844).
Aramides chiricote, pt., *Gray, Gen. B.* iii. p. 594 (1846).
Aramides mangle, *Burm. Th. Bras* iii. p. 385, note (1856); *Scl. & Salv. P. Z. S.* 1868, p. 449 (Bahia); *Gray, Hand-l. B.* iii. p. 60, no. 10426 (1871); *Pelz. Orn. Bras.* p. 316 (1871: Sapitiba); *Scl. & Salv. Nomencl. Av. Neotr.* p. 139 (1873).
Aramides ruficollis, *Bp. C. R.* xliii. p. 598 (1856, pt.); *Schl. Mus. Pays-Bas*, Ralli, p. 15 (1865).

Adult. General colour above olive; scapulars like the back; lower back and rump chocolate-brown, becoming black on the upper tail-coverts; wing-coverts olive like the back; bastard-wing feathers rufous, with dusky brown tips; primary-coverts olive-brown, edged with rufous; quills rufous, with dusky brown tips;

inner secondaries olive-brown like the back; tail-feathers black; crown of head ashy grey, becoming clearer and more slaty blue on the hind neck and upper mantle; lores and feathers over the eye ashy; sides of face and ear-coverts light ashy grey; cheeks and throat white; sides of neck ashy grey; remainder of under surface from the fore neck downwards rufous; abdomen isabelline; lower flanks brown, washed with grey; thighs pale ashy; under tail-coverts black; under wing-coverts and axillaries blackish, with narrow white or rufous cross bars; edge of wing rufous. Total length 12·5 inches, culmen 1·7, wing 6·2, tail 2·2, tarsus 2·05, middle toe and claw 2·05.

Hab. Brazil.

a. Ad. sk.	Bahia (*Dr. Luschnath*).	Salvin-Godman Coll.
b. Ad. sk.	Bahia (*Dr. Wucherer*).	Salvin-Godman Coll.
c. Ad. st.	[Brazil.]	Old Coll.

2. Aramides wolfi.

Aramides wolfi, *Berl. & Tacz. P. Z. S.* 1883, p. 576 (Chimbo, W. Ecuador).

Adult. General colour above olive-brown; scapulars like the back; lower back and rump reddish brown; upper tail-coverts black; wing-coverts like the back; bastard-wing and primary-coverts dull chestnut, inclining to dusky olive at the ends; quills chestnut, dusky brown at the ends; inner secondaries reddish brown, externally olive; tail-feathers black; crown of head light grey, becoming tinged with vinous on the nape; hind neck vinous brown, inclining to chestnut towards the mantle; lores, sides of face, and ear-coverts ashy grey; throat ashy white; sides of neck and fore neck vinous brown; breast ochreous olive, washed with reddish brown; abdomen blackish; lower flanks black, mixed with brown; thighs vinous brown; under tail-coverts black; under wing-coverts and axillaries chestnut, with black bars, indistinct on the former, but more distinct upon the latter; quills below chestnut, with dusky tips. Total length 11·5 inches, culmen 2·2, wing 7·0, tail 2·7, tarsus 2·8, middle toe and claw 2·6.

Of the two specimens in the Salvin-Godman Collection, there is a curious difference to note in the colour of the thighs; in the bird described they are vinous brown, but in the other blackish.

Hab. Ecuador.

a, *b*. Ad. sk.	Balzar Mountains, Ecuador (*Illingworth*).	Salvin-Godman Coll.

3. Aramides axillaris.

Ortygarchus manglè (*nec Spix*), *Cab. in Schomb. Reis. Brit. Guiana*, iii. p. 760 (1848) *.

Aramides axillaris, *Lawr. Proc. Philad. Acad.* 1863, p. 107 (Barranquilla, New Granada); *Scl. & Salv. P. Z. S.* 1868, p. 449 (Belize); *Gray, Hand-l. B.* iii. p. 60, no. 10427 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 139 (1873); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 311 (1874: Mazatlan); *Salv. Ibis*, 1874, p. 327 (N. Yucatan); *Boucard, P. Z. S.* 1883, p. 462; *Salvin, Ibis*, 1886, p. 176.

? Ortygarchus ruficollis (*nec Spix*), *Licht. Nomencl.* p. 96 (1854: Guiana, Venezuela).

Ortygarchus axillaris, *Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890: Guiana; Puerto Cabello).

Adult female. General colour above greenish olive; scapulars like the back; lower back and rump brownish black; upper tail-coverts black; wing-coverts olive like the back; bastard-wing rufous, inclining to olive at the ends; primary-coverts olive, slightly washed with rufous at the base; quills light chestnut or bay for the basal part, olive for the terminal part; secondaries olive like the back; tail-feathers black; crown of head, hind neck, and sides of the face rather paler chestnut; throat white tinged with rufous; the mantle and lower hind neck bluish grey, forming a distinct triangular patch; sides of neck and under surface of body bright chestnut; lower abdomen ashy grey; lower flanks black like the under tail-coverts; thighs dark slate-colour; under wing-coverts and axillaries blackish, barred with white or rufous; quill-lining pale chestnut: "bill green, yellowish at base; feet vinous red; eyelids and iris red" (*Léotaud*). Total length 12·5 inches, culmen 1·6, wing 6·9, tail 2·2, tarsus 2·15, middle toe and claw 1·2.

Sexes alike (*Léotaud*).

Young. Upper part of the head and nape dull brown: on the upper back an indication of the blue-grey patch of the adult, but only feebly developed; remainder of mantle and back olive-brown; rump blackish; throat and cheeks dirty white; remainder of under-parts dull dark grey, slightly washed with rufous: "iris very pale red" (*Léotaud*).

Hab. Colombia to Venezuela, Trinidad, and British Guiana. Re-occurring in Central America, from Honduras to Yucatan and Mazatlan.

a. ♂ ad. sk.	Venezuela (*Spence*).	Salvin-Godman Coll.
b. Ad. st.	Venezuela.	Old Coll.

* Dr. Reichenow has very kindly compared Schomburgk's specimen in the Berlin Museum for me, and there is no doubt that it is *A. axillaris*, thus confirming the surmise of Messrs. Sclater and Salvin.

4. Aramides gutturalis *. (Plate V.)

? Black-bellied Gallinule, *Lath. Gen. Syn.* iii. pt. 1, p. 253 (1785: Cayenne).
? Fulica ruficollis, *Gm. Syst. Nat.* i. p. 700 (1788, *ex Lath.*).
? Gallinula ruficollis, *Lath. Ind. Orn.* ii. p. 767 (1790).
Rallus ruficeps, pt., *Gray, List Gralle Brit. Mus.* p. 115 (1844; spec. *d*).
Aramides ruficollis, *Gray, Gen. B.* iii. p. 594 (1846); *Scl. & Salv. P. Z. S.* 1868, p. 448; *Gray, Hand-l. B.* iii. p. 60, no. 10429 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 139 (1873).

Adult. General colour above dark olive-brown; scapulars and lesser wing-coverts like the back; lower back more chocolate-brown, becoming black on the rump and upper tail-coverts; median and greater wing-coverts reddish brown; bastard-wing dusky brown, externally rufous brown; primary-coverts and quills chestnut, dusky brown at the ends, the secondaries dusky brown, externally reddish brown, the innermost ones like the back; tail-feathers black; crown of head dark chestnut-brown; forehead and ear-coverts tinged with grey; lores and sides of face paler and more vinous red; cheeks more decidedly grey; chin and upper throat greyish white, shading off on the lower throat into a patch of blue-grey; remainder of under surface from the lower throat downwards rich chestnut; lower abdomen blackish mixed with rufous; lower flanks and under tail-coverts black; thighs ashy brown; under wing-coverts and axillaries rufous, broadly barred with black; quills below rufous. Total length 13·5 inches, culmen 1·9, wing 6·8, tail 2·4, tarsus 2·7, middle toe and claw 2·35.

Hab. South America; but exact locality not known.

a. Ad. sk. [Lima.] Purchased. (Type of species.)

5. Aramides cayanea †.

Poule d'eau de Cayenne, *Daubent. Pl. Enl.* ix. pl. 352.
Fulica cajanea, *P. L. S. Müller, Syst. Nat. Su. pl.* p. 119 (1776); *Cass. Proc. Philad. Acad.* 1864, p. 216.
La Grande Poule d'eau de Cayenne, *Buff. Hist. Nat. Ois.* viii. p 182 (1781).
Fulica major, *Bodd. Tabl. Pl. Enl.* p. 21 (1783).
Cayenne Gallinule, *Lath. Gen. Syn.* iii. pt. 1, p. 252 (1785).

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* This is the species referred to as *Aramides ruficollis*, Gm. (founded on the "Black-bellied Gallinule" of Latham), by Messrs. Sclater and Salvin. The dimensions, however, do not agree, and the species differs from Latham's description in many important particulars. No mention is made by Latham of the grey on the lower throat, while he further describes the sides as "barred with rufous and black," and the thighs as "black."

† Müller wrote this word *cajanca*, and, as Cassin has shown, this is the oldest name for the species. Even if Müller's work should some day be repudiated by ornithologists on account of his carelessness and his apparent colour-blindness, then the proper name of the species would be *Aramides major* (Boddaert), founded on Daubenton's plate.

Fulica cayennensis, *Gm. Syst. Nat.* i. p. 700 (1788; *ex Lath.*).
Gallinula cayennensis, *Lath. Ind. Orn.* ii. p. 767 (1790).
Rallus ruficeps, pt., *Gray, List Gralle Brit. Mus.* p. 115 (1844).
Aramides cayennensis, *Gray, Gen. B.* iii. p. 594 (1846); *Geoff. St.-Hilaire, Bull. Soc. Acclim.* (2) vii. p. 139 (1870); *Pelz. Ibis*, 1873, p. 122 (Cayenne); *Scl. & Salv. P. Z. S.* 1868, p. 447 (pt.); *iid. Nomencl. Av. Neotr.* p. 139 (1873, pt.); *iid. P. Z. S.* 1879, p. 545 (Antioquia); *Berl. Ibis*, 1884, p. 440 (Angostura); *Salv. Ibis*, 1886, p. 176; *Meyer, Abbild. Vögel-Sk.* pl. lxxiv. (1885).
Ortygarchus cayennensis, *Cab. in Schomb. Reis. Guian.* iii. p. 759 (1848); *Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890: Santa Marta; Puerto Cabello).
Aramides maximus, *Schl. Mus. Pays-Bas*, Ralli, p. 14 (1865).
Aramides cayanea, *Gray, Hand-l. B.* iii. p. 60, no. 10425 (1871).

Adult male. General colour above olive, greenish on the back and scapulars and browner on the lower back; rump, upper tail-coverts, and tail black; lesser wing-coverts olive-greenish like the back; remainder of wing chestnut, with dusky tips to the primary-coverts and quills; the greater coverts and inner secondaries externally washed with olive, the innermost secondaries dark greenish olive with black shaft-streaks; crown of head dusky slate-colour, lighter on the hind neck, the grey extending on to the upper mantle; sides of face ashy grey, becoming lighter and purer grey on the cheeks, sides of the neck, and on the fore neck; throat white; remainder of under surface from the fore neck downwards orange-chestnut; the abdomen, lower flanks, and under tail-coverts black; thighs slaty grey; under wing-coverts and axillaries rufous, barred across with black. Total length 10·5 inches, culmen 2·1, wing 7·2, tail 2·6, tarsus 2·75, middle toe and claw 2·5.

Adult female. Similar to the male in colour, but with the abdomen a little more rufous (? a sign of immaturity). Total length 13·5 inches, culmen 2, wing 6·7, tail 2·2, tarsus 2·7, middle toe and claw 2·2.

Hab. Colombia and British Guiana to Northern Brazil.

a. Ad. sk.	South America.	
b. ♂ ad. sk.	Remedios, Antioquia, U. S. Colombia (*T. K. Salmon*).	Salvin-Godman Coll.
c. Ad. sk.	Maroni River, Surinam (*Kappler*).	Salvin-Godman Coll.
d, *e*. ♂ ♀ ad. sk.	Bartica Grove, British Guiana, Jan. (*H. Whitely*).	Salvin-Godman Coll.
f. ♀ ad. sk.*	Rio de Boraxudo, Brazil, Dec. 24 (*J. Natterer*).	Salvin-Godman Coll
g. Skeleton.		Purchased.

Subsp. *a*. Aramides chiricote.

Chiricote, *Azara, Apunt.* iii. p. 214 (1802).
Rallus chiricote, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 551 (1819).

* I am not quite satisfied that this specimen belongs here. It is ashy grey above, and the rufous colour of the under surface is also very pale.

Rallus maximus, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 555 (1819).
Gallinula ruficollis, var. (*nec Gm.*), *Swains. Zool. Illustr.* iii. pl. 173 (1822–23).
Gallinula ruficeps, *Spix, Av. Bras.* ii. p. 74, tab. xcvi. (1825).
Gallinula cayennensis (*nec Gm.*), *Neuwied, Beitr. Orn. Bras.* iv. p. 798 (1832).
Aramides chiricote, *Hartl. Ind. Azara*, p. 23 (1847).
Aramides cayennensis (*nec Gm.*), *Burm. Th. Bras.* iii. p. 384 (1856; Lagoa Santa, Novo Fribourgo, Rio de Janeiro); *Sel. P. Z. S.* 1856, p. 143 (Panama); *Salv. P. Z. S.* 1867, p. 161; *Sel. & Salv. P. Z. S.* 1874, p. 308 (Lower Ucayali); *Tacz. P. Z. S.* 1874, p. 558 (Amable Maria, C. Peru); *Forbes, Ibis*, 1881, p. 358 (Pernambuco); *Tacz. Orn. Pérou*, iii. p. 318 (1886); *Berl. J. f. O.* 1887, p. 35 (Pilcomayo); *Riker & Chapm. Auk*, viii. p. 163 (1891: Santarem).
Aramides, sp., *Sel. & Salv. P. Z. S.* 1866, p. 200.
Aramides cayanea, pt., *Gray, Hand-l. B.* iii. p. 60, no. 10425 (1871).

Adult male. Similar to *A. cayanea*, but differing in the brown or rufous brown on the hinder part of the crown and nape, which separates the grey forehead from the grey of the hind neck; there is also a little brown shade on the ear-coverts: "iris bright carmine, as also the eyelid; bill yellow from the base to the end of the nasal groove, the tip bright green; feet light sealing-wax red" (*Neuwied*). Total length 13·5 inches, culmen 2·05, wing 7·3, tail 2·7, tarsus 2·8, middle toe and claw 2·45.

Hab. Brazil, through Amazonia to Central Peru and northward to New Granada and Panama.

a–c. Ad. st.	South America.	Purchased.
d. Ad. sk.	South America.*	Riocour Coll.
e, f. Ad. sk.	Bahia, Brazil (*Dr. Wucherer*).	Salvin-Godman Coll.
g. Ad. sk.	Para, Lower Amazon.	R. Graham, Esq. [P.].
h. ♀ ad. sk.	Upper Amazons, June 1850 (*A. R. Wallace*).	Salvin-Godman Coll.
i. ♀ ad. sk.	Chapada, Matto Grosso, Brazil, Nov. 22 (*D. W. Smith*).	Salvin-Godman Coll.
k. ♀ ad. sk.	Yquitos, Peru, Oct. 11 (*H. Whitely*).	Salvin-Godman Coll.
l. Ad. sk.	Interior of New Granada.	Salvin-Godman Coll.
m. Ad. sk.	Panama.	Capt. Kellett & Lieut. Wood, R.].
n. ♀ ad. sk.	Lion Hill Station, Panama (*J. McLeannan*).	Salvin-Godman Coll.
o. Ad. sk.	Veragua (*E. Arcé*).	Salvin-Godman Coll.

Subsp. β. Aramides albiventris.

Aramides cayennensis (*nec Gm.*), *Scl. P. Z. S.* 1857, p. 206 (S. Andres Tuxtla); *Moore, P. Z. S.* 1859, p. 64 (Omoa); *Scl. t. c.* p. 393 (Oaxaca); *id. & Salv. Ibis*, 1859, p. 230; *iid. P. Z. S.* 1867, p. 280 (♀); *Ridgw. Proc. U.S. Nat. Mus.* x. p. 594 (1887: Segovia River, Honduras).

* Identified by Vieillot as his *Rallus maximus*.

Aramides albiventris, *Lawr. Proc. Philad. Acad.* 1867, p. 234; *id. Ann. Lyc. N. Y.* ix. p. 143 (1868: Costa Rica); *Sel. & Salv. P. Z. S.* 1868, p. 447; *Sel. & Salv. P. Z. S.* 1870, p. 838 (Honduras); *Gray, Hand-l. B.* iii. p. 60, no. 10430 (1871); *Sel. & Salv. Nomencl. Av. Neotr.* p. 139 (1873); *Salv. Ibis*, 1874, p. 327 (W. Yucatan); *Boucard, P. Z. S.* 1883, p. 462 (Yucatan); *Ferrari-Perez, Proc. U.S. Nat. Mus.* ix. p. 177 (1887: Vera Cruz); *Salv. Ibis*, 1889, p. 378 (Cozumel), 1890, p. 89.

Adult male. Similar to *A. chiricote*, but with a more distinct patch of reddish brown on the hinder part of the head, and further distinguished by the paler colour of the long tawny feathers of the lower breast, which have whitish ends; the general colour of the plumage of the upper surface a little more greenish grey. Total length 13·5 inches, culmen 2·6, wing 7·7, tail 2·3, tarsus 3·4, middle toe and claw 3.

Adult female. Similar to the male in colour. Total length 14·5 inches, culmen 2·65, wing 7, tail 2·1, tarsus 3, middle toe and claw 2·7.

Hab. Central America from Mexico to Costa Rica. It is uncertain whether the *Aramides* from Mosquitia belongs to the present species or *A. chiricote* (*cf.* Scl. & Salv. P. Z. S. 1868, p. 448).

a, *b*. ♂ ♀ ad. sk.	Tampico, Mexico, June (*W. B. Richardson*).	Salvin-Godman Coll.
c, *d*. Ad.; *e*. ♀ ad. sk.	Playa Vicente, Vera Cruz, Dec. (*M. Trujillo*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Vega del Casadero, Vera Cruz, Dec. (*M. Trujillo*).	Salvin-Godman Coll.
g. ♂ ad. sk.	Laguna Verde, Vera Cruz, Sept. (*M. Trujillo*).	Salvin-Godman Coll.
h. ♂ ad. sk.	Tehuantepec, Oaxaca, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
i. ♂ ad. sk.	Retalhuleu, July 15 (*W. B. Richardson*).	Salvin-Godman Coll.
k. Ad. sk.	Mouth of River Samala, Guatemala (*O. Salvin*).	Salvin-Godman Coll.
l, *m*. Ad. sk.	Choctum, Vera Paz (*O. S.*).	Salvin-Godman Coll.
n. ♀ ad. sk.	Cozumel Island (*G. F. Gaumer*).	Salvin-Godman Coll.
o. Ad. sk.	Belize, British Honduras (*F. Blancaneaux*).	Salvin-Godman Coll.
p. ♀ ad. sk.	Costa Rica (*J. Carmiol*).	Salvin-Godman Coll.
q. Skeleton.	Guatemala.	Salvin-Godman Coll.

6. Aramides ypacaha.

Ypacaha, *Azara, Apunt.* iii. p. 210 (1805).

Rallus ypacaha, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 568 (1819): *Gould in Darwin's Voy. 'Beagle,' Birds*, p. 133 (1841: Buenos Aires); *Gray, List Grallæ Brit. Mus.* p. 115 (1844).

Crex melampyga, *Licht. Verz. Doubl.* p. 79 (1823).

Gallinula gigas, *Spix, Av. Bras.* ii. p. 75, tab. 99 (1823: Minas Geraes).

Aramides gigas, *Pucheran, Rev. Zool.* 1845, p. 14; *Gray, Gen. B.* iii. p. 594 (1846); *Burm. Th. Bras.* iii. p. 383 (1856: Minas

Geraes, Rio de Janeiro); *id. Reis. La Plata-St.* ii. p. 504 (1861: Panama); *Schl. Mus. Pays-Bas*, Ralli, p. 14 (1865).

Aramides ypacaha, *Gray, Gen. B.* iii. p. 594 (1846); *Hartl. Ind. Azara*, p. 23 (1847); *Scl. & Salv. P. Z. S.* 1868, p. 144 (Conchitas); *iid. t. c.* p. 448 (Monogr.); *Gray, Hand-l. B.* iii. p. 60, no. 10424 (1871); *Pelz. Orn. Bras.* p. 316 (note), p. 458 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 139 (1873); *Hudson, P. Z. S.* 1876, p. 105 (Buenos Aires); *Durnf. Ibis*, 1877, p. 194 (Baradero); *White, P. Z. S.* 1883, p. 433 (La Plata); *Barrows, Auk*, i. p. 276 (1884: Concepcion); *Berl. J. f. O.* 1887, p. 34 (Pilcomayo); *Scl. & Hudson, Argent. Orn.* ii. p. 150 (1889); *Kerr, Ibis*, 1892, p. 148 (Lower Pilcomayo).

Ortygarchus melampygus, *Licht. Nomencl. Av.* p. 96 (1854).

Adult. General colour above olive, browner on the lower back: rump, upper tail-coverts, and tail black; wing-coverts like the back: bastard-wing and primary-coverts olive with a slight reddish tinge; quills light chestnut, externally olive, the inner secondaries like the back; fore part of crown, eyebrow, and sides of face ashy grey; hinder crown reddish brown, becoming vinous chestnut on the nape and hind neck, brighter on the sides of the neck; chin and upper throat whitish; lower throat, fore neck, and chest light bluish grey; breast pale vinous; abdomen and vent white; thighs ashy grey; sides of body, flanks, and under tail-coverts black; under wing-coverts and axillaries chestnut, the former barred with black; quills below pale chestnut. Total length 16·5 inches, culmen 2·8, wing 8·7, tail 3·3, tarsus 3·45, middle toe and claw 3·4.

Hab. Southern Brazil and Argentina.

a. Ad. sk. Brazil. Massena Coll.
b. ♀ ad. sk. Conchitas, Buenos Aires, Oct. (*W. H. Hudson*). Salvin-Godman Coll.

7. Aramides saracura.

Chiricóte aplomado, *Azara, Apunt.* iii. p. 216 (1805).

Rallus nigricans (*nec V.*), *Bp. Journ. Philad. Acad.* iv. p. 383 (1825); *Burm. J. f. O.* 1853, p. 176 (egg).

Gallinula saracura, *Spix, Av. Bras.* ii. p. 75, Taf. 98 (1825).

Rallus melanurus, *Bp. Journ. Philad. Acad.* v. p. 139 (1825).

Gallinula plumbea, *Neuwied, Beitr. Orn. Bras.* iv. p. 795 (1832); *Tschudi, Faun. Peruan., Aves*, pp. 52, 302 (1845–46).

Aramides plumbeus, *Gray, Gen. B.* iii. p. 594 (1846); *Hartl. Ind. Azara*, p. 23 (1847); *Burm. Th. Bras.* iii. p. 383 (1856); *Schl. Mus. Pays-Bas*, Ralli, p. 15 (1865).

Aramides saracura, *Scl. & Salv. P. Z. S.* 1868, p. 449; *Reinh. Vid. Medd. Kjöbenh.* 1870, p. 44; *Gray, Hand-l. B.* iii. p. 60, no. 10428 (1871); *Pelz. Orn. Bras.* pp. 316, 458; *Scl. & Salv. Nomencl. Av. Neotr.* p. 139 (1873); *Tacz. Orn. Pérou*, iii. p. 319 (1886).

Ortygarchus surucura, *Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890).

Adult. General colour above greenish olive; scapulars like the back; lower back brown, becoming blacker on the rump; upper tail-coverts and tail black; wing-coverts like the back: bastard-

wing and primary-coverts dusky brown, with a slight tinge of rufous, olive externally; quills light chestnut or bay for the basal part, olive towards the ends; secondaries entirely olive-brown; hinder crown brown, becoming more rufescent on the nape and hind neck, the latter becoming ruddy olive-brown on the mantle, the sides of face a little paler; hinder ear-coverts washed with ruddy brown; throat white; sides of neck and entire under surface of body slaty blue; sides of body and flanks blackish; thighs slaty grey; under tail-coverts black; under wing-coverts and axillaries chestnut, barred with black; quills below light rufous, dusky at the ends: "bill light green, bluish green at the base; feet clear dark red, with a tinge of brownish grey; iris carmine, as also the eyelid" (*Neuwied*). Total length 14·5 inches, culmen 2·2, wing 7·2, tail 2·4, tarsus 2·9, middle toe and claw 2·6.

Hab. Brazil, extending into Peru (*Tschudi*).

a. Ad. sk.	South America.	Rioconr Coll.
b. Ad. sk.	Brazil.	Salvin-Godman Coll.
c. Ad. st.	Brazil.	Purchased.
d, *e*. Ad. sk.	Brazil.	M. Claussen [P.].
f. Ad. sk.	Santa Fé, Minas Geraes, Brazil (*H. Rogers*).	Salvin-Godman Coll.
g. ♀ ad. sk.	Pelotas, Rio Grande do Sul (*Joyner*).	Salvin-Godman Coll.
h. ♂ ad. sk.	Ypanema, Brazil, April (*J. Natterer*).	Salvin-Godman Coll.

8. Aramides callopterus.

Aramides callopterus, *Scl. & Salv. P. Z. S.* 1878, p. 439, pl. xxviii.

Adult (type of species). General colour above greenish olive; scapulars like the back; lower back and rump chocolate-brown; lesser wing-coverts like the back; median and greater coverts beautiful chestnut, with olive bases; bastard-wing, primary-coverts, and quills dusky brown, slightly olivaceous on the outer webs; the inner secondaries olive like the back, browner towards the ends; upper tail-coverts and tail-feathers black; crown of head dusky olive-brown, becoming rather clearer olive on the hind neck; forehead dusky slate-colour; lores, region of the eye, and cheeks ashy; ear-coverts pale vinous; throat white, with a shade of pale pearly grey; sides of neck deep maroon chestnut; fore neck and under surface of body slaty blue, more dusky blackish on the vent and under tail-coverts; lower flanks dusky brown; under wing-coverts black, broadly tipped with white; axillaries black, barred across with white. Total length 12·5 inches, culmen 1·85, wing 6·5, tail 2, tarsus 2·55, middle toe and claw 2·25.

Hab. Ecuador.

a. Ad. sk.	Sarayacu, Ecuador (*C. Buckley*).	Salvin-Godman Coll. (Type of species.)
b, *c*, *d*. Ad. sk.	Sarayacu (*C. Buckley*).	Salvin-Godman Coll.

9. MEGACREX.

Type.

Megacrex, *D'Albert. & Salvad. Ann. Mus. Civic. Genov.* xiv. p. 129 (1879) ..... M. inepta.

Range. Southern New Guinea.

1. Megacrex inepta.

Megacrex inepta, *D'Albert. & Salvad. Ann. Mus. Civic. Genov.* xiv. p. 130 (1879); *D'Albert. P. Z. S.* 1879, p. 218; *Reichen. & Schalow, J. f. O.* 1879, p. 310; *Gould, B. New Guinea*, v. pl. 69 (1880); *D'Albert. Nuova Guinea*, p. 588 (1880); *Salvad. Ann. Mus. Civic. Genov.* xviii. p. 321 (1882); *id. Orn. Papuasia*, iii. p. 272 (1882).

Adult male. Crown and hind neck dusky brown, the forehead ashy; sides of head ashy grey, the lores darker; throat whitish; sides of neck pale vinous in the centre, below brownish olive; back olive-greyish; rump, upper tail-coverts, and tail, which is very short and concealed, brown; lower part of fore neck, upper breast, and sides of breast rufescent; centre of breast and abdomen white, slightly tinged with rufous; sides olive; lower abdomen and thighs greyish vinous; sides of abdomen and under tail-coverts brown; wing-coverts greyish olive, uniform with the back; quills brownish olive; bill yellowish green; feet black; iris dark blood-red. (*Salvadori.*)

Adult female. Similar to the male, but a little smaller.

Total length about 17–21·5 inches, culmen with frontal shield 2·84–3·05, wing 7–7·6, tail 1·6, tarsus 3·6–3·9. (*Salvadori.*)

Hab. Fly River, S.E. New Guinea.

10. HABROPTILA.

Habroptila, *Gray, P. Z. S.* 1860, p. 365.

Range. Island of Halmahéra, in the Moluccas.

1. Habroptila wallacei.

Habroptila wallacei, *Gray, P. Z. S.* 1860, p. 365, pl. 172; *Finsch, Neu-Guin.* p. 180 (1865); *Schleg. Dierent.* p. 262, cum fig. p. 262; *id. Ned. Tijdsch. Dierk.* iii. p. 250 (1866); *Gray, Hand-l. B.* iii. p. 67, no. 10512 (1871); *Salvad. Ann. Mus. Civic. Genov.* vii. p. 793 (1875), xviii. p. 320, no. 10 (1882); *id. Orn. Papuasia etc.* iii. p. 271 (1882).

Rallina (Habroptila) wallacei, *Schleg. Mus. Pays-Bas*, Ralli, p. 78 (1865).

Adult (type of species). General colour above dull slate-colour, with a slight tinge of olive-green; lower back, rump, and upper tail-coverts chocolate-brown, the latter inclining to blackish; wing-coverts brown, externally slaty, the greater series more chocolate-

brown, with dusky centres: primary-coverts and primaries blackish, the inner secondaries like the back; head and neck all round dusky slate-colour, a little brighter on the under surface of the body, which is somewhat barred with brown centres to the feathers; thighs and under tail-coverts blackish; axillaries and under wing-coverts like the breast. Total length 15 inches, culmen 2·85, wing 7, tail 2·5, tarsus 2, middle toe and claw 2·85.

Hab. Island of Halmahéra or Gilolo, in the Moluccas.

a, *b*. Ad. sk. Halmahéra. Wallace Coll. (Types of species.)

11. OCYDROMUS.

	Type.
Ocydromus, *Wagler, Nat. Syst. Amphib.* p. 93, note (1830)	O. australis.
Gallirallus, *Lafr. Rev. Zool.* 1841, p. 243	O. brachypterus.

Range. Confined to New Zealand. Supposed to have formerly inhabited the Chatham Islands as well.

Key to the Species.

a. Tail always distinctly barred with black and sandy buff, or rufous, the region of the shaft only black; colour of upper parts mostly tawny; throat and a chest-patch grey, separated by a broad patch of tawny or cinnamon; flanks always barred across with black ..... *australis*, p. 64.

b. Tail black, with no cross bars, but occasional rufescent margins; flanks not barred.

a'. General colour above dark rufous brown, broadly streaked with black; under surface of body slaty grey, the throat separated from the chest by a band of reddish brown across the fore neck..... *earli*, p. 66.

b'. General colour above black like the under surface, with margins of rufous brown to the feathers; throat dull ashy; centre of breast, abdomen, and thighs also ashy brown ..... *brachypterus*, p. 67.

1. Ocydromus australis.

Rallus troglodytes, *Forster, Icon. ined.* tab. 126 (descr. nullâ).
Troglodyte Raïl, *Lath. Gen. Syn.* iii. pt. 1, p. 229 (1785).
Rallus australis, *Sparrm. Mus. Carls.* i. pl. 14 (1786); *Gm. Syst. Nat.* i. p. 717 (1788, *ex Sparrm.*); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 560, pt. (1819); *Sundev. Krit. om Sparrm.* p. 5 (1858).
Rallus troglodytes, *Gm. Syst. Nat.* i. p. 713 (1788); *Forster, Descr. Anim.* p. 110 (1844).
Ocydromus troglodytes, *Wagl. Nat. Syst. Amphib.* p. 93, note (1830); *Finsch, Tr. N. Zeal. Inst.* v. p. 209 (1872); *Hutton, op. cit.* vi. p. 110 (1873: Te Anau Lake); *Finsch, op. cit.* vii. p. 231 (1874);

Sharpe, Voy. 'Erebus' & 'Terror,' App. Birds, p. 28 (1875); *Buller, Tr. N. Zeal. Inst.* viii. p. 202 (1875).

Ocydromus australis, *Strickl. Ann. & Mag. Nat. Hist.* vii. p. 39 (1841); *Gray, Gen. B.* iii. p. 596 (1846); *id. Voy. 'Erebus' & 'Terror,'* p. 13, pl. 14 (1846); *Reichenb. Handb., Fulicar.* Taf. cxxiii. fig. 1210 (1851); *Gray, Ibis*, 1862, p. 237; *Schl. Mus. Pays-Bas*, Ralli, p. 73 (1865); *Wolf, Zool. Sketches*, 2nd series, 1865, pl.; *Buller, Tr. N. Zeal. Inst.* i. p. 56 (1868); *Travers, t. c.* p. 178 (formerly in Chatham Island); *Potts, op. cit.* ii. p. 70 (1869), iii. p. 100 (1870); *Finsch, J. f. O.* 1870, p. 352; *Gray, Hand-l. B.* iii. p. 56, no. 10363 (1871); *Finsch, Tr. N. Zeal. Inst.* v. p. 209 (1872); *Buller, B. N. Zeal.* p. 179, pl. xix. fig. 2 (1873); *Hutton, Tr. N. Zeal. Inst.* vi. p. 111 (1873); *Finsch, J. f. O.* 1874, p. 178; *Sharpe, Voy. 'Erebus' & 'Terror,' App. Birds*, p. 28 (1875); *Buller, Tr. N. Zeal. Inst.* viii. p. 187 (1875: egg); *id. op. cit.* x. p. 215 (1877); *Reischek, Tr. N. Zeal. Inst.* xvii. p. 190 (1884); *Smith, op. cit.* xviii. p. 131 (1885); *Buller, B. New Zeal.* 2nd edit. ii. p. 116, pl. 35. fig. 1 (1888); *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxx (Jan. 1893).

Ocydromus brachypterus (*nec Lafr.*), *Schl. Mus. Pays-Bas*, Ralli, p. 73 (1865); *Buller, B. N. Zeal.* 2nd edit. ii. p. 119, pl. 35. fig. 2 (1888).

Ocydromus hectori, *Hutton, Tr. N. Zeal. Inst.* vi. p. 110 (1873); *Finsch, op. cit.* vii. p. 231 (1874); *Sharpe, Voy. 'Erebus' & 'Terror,' App. Birds*, p. 128 (1875).

Ocydromus earli (*nec Gray*), *Finsch, Tr. N. Zeal. Inst.* vii. p. 231 (1874).

Adult male. General colour above tawny buff, thickly striped with broad black centres to the feathers; the lower back, rump, and upper tail-coverts nearly uniform tawny buff, with a few dusky bars; scapulars and wing-coverts barred with black and tawny buff, the latter colour often arranged in notches, and with somewhat of a rufous shade; quills, as well as the upper tail-coverts and tail-feathers, chestnut with black bars, narrower on the latter; head rather more rufescent than the back and more narrowly streaked with black; lores and feathers round the eye black, with a supraloral streak of buff, continued into a streak of grey above the ear-coverts, and forming an eyebrow; eyelid whitish; ear-coverts tawny rufous, streaked with black; cheeks and throat ashy grey; sides of neck, fore neck, and chest light tawny, spotted with black, streaked with black centres to the feathers; breast duller tawny buff, washed with ashy on the upper parts and crossed with dusky bars; the lower breast and abdomen dusky brown, indistinctly barred with pale fulvous; sides of the body sandy buff or light tawny, more rufescent on the lower flanks, all broadly barred with black, rather more narrowly on the flanks; vent light tawny, the under tail-coverts rufous, with black bars; under wing-coverts deep tawny or rufous, with black bars; quills chestnut below, with black cross bands: "bill pale reddish brown at base, brown at the tip; tarsi and toes pale lake-red, claws brown; iris bright reddish brown" (*W. L. Buller*). Total length 19 inches, culmen 1·7, wing 6·8, tail 6·1, tarsus 1·75.

Adult female. Similar to the male, but a little smaller.

Nestling. Covered with down of a dark mouse-brown colour. The plumage which ensues is mainly that of the adult bird, but its texture is rather softer, and the bars on the sides of the body are less pronounced.

I have been much indebted to the Hon. Walter Rothschild for the loan of the series of skins of *Ocydromus* in his collection. Most of them were formerly in the collection of Sir Walter Buller, but few of the skins in the Buller collection have indications of exact localities, and the bulk of those of *O. australis* are merely labelled "South Island," which of course does not convey much information as to the exact localities where they were obtained. This is the more to be regretted, as it has prevented my being able to express an opinion as to the value of the different races of *O. australis*. Two forms can be distinguished, one of which is sandy buff in general appearance, while the other inclines to cinnamon. On looking over a large series, there seems to be a complete intergradation between those two forms, which may therefore be only climatic varieties, and the differences in plumage may depend on locality. Sir Walter Buller, in fact, mentions that the alpine birds are paler than those from the lower country; but there seem to me to be other forms which, if carefully studied, would probably be found to have a distinctive character and geographical distribution, so that the question of the South Island Weka Rails can by no means be considered settled.

Hab. South Island, New Zealand.

a. Ad. st.	New Zealand.	Percy Earl, Esq. [P.].
b, c. Ad. sk.	New Zealand.	Salvin-Godman Coll.
d. Ad. sk.	New Zealand.	Edward Hargitt, Esq. [P.].
e–k. Ad. et juv. sk.	New Zealand.	Colonial Museum, Wellington.
l, m, n. Ad. sk.	New Zealand.	Sir G. Grey [P.].
o, p. ♂ ♀ ad. sk.	Port Cooper (*F. Strange*).	Capt. Stokes [P.].
q. Skeleton.	New Zealand.	Purchased.

2. Ocydromus earli.

Ocydromus earli, *Gray, Ibis*, 1862, p. 328; *Buller, Tr. N. Zeal. Inst.* i. p. 56 (1868); *Finsch, J. f. O.* 1870, p. 353; *Gray, Hand-l. B.* iii. p. 56, no. 10365 (1871); *Finsch, J. f. O.* 1872, p. 179; *Buller, B. N. Zeal.* p. 165, pl. xix. fig. 1 (1873); *Hutton, Tr. N. Zeal. Inst.* vi. p. 112 (1873); *Finsch, J. f. O.* 1874, p. 199; *id. Tr. N. Zeal. Inst.* vii. p. 231 (1874); *Sharpe, Voy. 'Erebus' & 'Terror.' App. Birds*, p. 28 (1875); *Buller, Tr. N. Zeal. Inst.* x. p. 215 (1877); *Hamilton, op. cit.* xviii. p. 12 (1885: Hawkes Bay); *Buller, B. N. Zeal.* 2nd ed. ii. p. 115 (1888); *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxix (Jan. 1893).

Ocydromus australis (*nec Sparrm.*), *Finsch, Tr. N. Zeal. Inst.* vii. p. 231 (1874).

Ocydromus greyi, *Buller, B. N. Zeal.* 2nd ed. ii. p. 105, pl. 34. fig. 1 (1888).

Adult male. General colour above reddish brown, streaked with black; wing-coverts like the back, but the outer ones a little more uniform and not as distinctly centred with black; the quills

blackish externally, and barred with black and rufous on the inner webs, the inner secondaries rufous like the back and similarly centred; lower back, rump, and upper tail-coverts uniform reddish brown, the latter with black centres; tail-feathers black, obscurely margined with rufous brown, but appearing to all intents and purposes black; crown of head like the back, the feathers streaked with black centres; lores dusky blackish, as well as the feathers below the eye and at the angle of the mouth; a supraloral streak of greyish white continued in a broad grey eyebrow; sides of face, ear-coverts, throat, and under surface of body ashy grey; along the upper parts of the ear-coverts a band of reddish brown, continued on to the sides of the neck, which are also reddish brown like the fore neck, this forming a broad collar, which is slightly mottled with indistinct dusky centres to the feathers; chin whitish; the abdomen slightly more dusky grey than the breast, the whole of the grey of the underparts having an obscure dusky shading; sides of body, flanks, and under tail-coverts dull reddish brown, the latter with some dusky cross bars; under wing-coverts rufous brown; quills below black and chestnut: "bill reddish brown, darker on the ridge, changing into horny grey at the tip; tarsi and toes pale brown, claws darker; iris light reddish brown" (*W. L. Buller*). Total length 17·5 inches, culmen 2, wing 8, tail 4·4, tarsus 2·4.

Adult female. Similar to the male, but smaller.

Young (type of species). Similar to the adult, but the grey of the under surface less defined, as also the lower collar on the fore neck, the whole of the under surface being pervaded by a shade of brown.

Hab. New Zealand (both N. and S. Islands).

a. Ad. sk.	New Zealand.	Sir G. Grey [P.].
b. Juv. sk.	New Zealand.	Percy Earl, Esq. [P.]. (Type of species.)
c, *d*, *e*. Ad. et juv. sk.	New Zealand.	Colonial Museum, Wellington.
f. ♂ ad. sk.	Milford Sound, March 1850.	Capt. Stokes [P.].

3. Ocydromus brachypterus.

Gallirallus brachypterus, *Lafr. Rev. de Zool.* 1841, p. 243; *id. Mag. de Zool.* 1842, pl. 24 (type examined).

Ocydromus brachypterus, *Gray, Gen. B.* iii. p. 596 (1846); *id. Ibis*, 1862, p. 238; *id. Hand-l. B.* iii. p. 56, no. 10364 (1871); *Sharpe, Bull. Brit. Orn. Club.* no. v. p. xxvii (Jan. 1893).

Gallirallus fuscus, *Du Bus, Esq. Orn.* livr. 3, pl. ii. (1847).

Ocydromus nigricans, *Buller, Tr. N. Zeal. Inst.* i. p. 56 (1868), iii. p. 55 (1870); *Gray, Hand-l. B.* iii. p. 56, no. 10366 (1871).

Ocydromus fuscus, *Finsch, J. f. O.* 1870, p. 354; *id. Tr. N. Zeal. Inst.* v. p. 209 (1872); *id. J. f. O.* 1872, p. 180; *Hutton, Tr. N. Zeal. Inst.* vi. p. 111 (1873); *Buller, B. N. Zeal.* p. 174 (1873); *Finsch, J. f. O.* 1874, p. 199; *Buller, Tr. N. Zeal. Inst.* vii. p. 206 (1874); *Finsch, t. c.* p. 231; *Sharpe, Voy. 'Erebus' & 'Terror', App. Birds*, p. 28 (1875); *Buller, Tr. N. Zeal. Inst.* x. p. 216 (1877); *Meyer, Abbild. Vog.-Skel.* pts. iv., v. p. 31, Taf. xl. (1883); *Reischek, Tr. N. Zeal. Inst.* xvii. p. 190 (1884); *Buller, B. New Zeal.* 2nd ed. ii. p. 112, pl. 34. fig. 2 (1888).

Ocydromus finschi, *Hutton, Tr. N. Zeal. Inst.* vi. p. 111 (1873); *Finsch, J. f. O.* 1874, p. 199; *id. Tr. N. Zeal. Inst.* vii. p. 232 (1874); *Sharpe, Voy. 'Erebus' & 'Terror,' App. Birds*, p. 28 (1875); *Hutton, Tr. N. Zeal. Inst.* ix. p. 331 (1876).

Adult male. General colour above black, very slightly varied with rufescent edgings to the feathers; the quills slightly chequered on their margins with rufous, the primaries distinctly barred with the latter colour; tail-feathers black; lores blackish, surmounted by a very indistinct line of ashy; throat dark ashy; remainder of under surface black, with reddish margins to the feathers; lower breast, abdomen, and thighs uniform dusky ashy brown; under tail-coverts black, barred with rufous; under wing-coverts black, with narrow rufous bars; the quills broadly barred with chestnut and black below: "bill dark brown, tinged with red towards the base; legs bright reddish brown, darker on the hind part of the tarsi and on the under surface of toes; iris bright reddish brown" (*W. L. Buller*). Total length 17·5 inches, culmen 0·85, wing 7, tail 4·8, tarsus 2·2, middle toe and claw 2·6.

Hab. South Island, New Zealand.

a. Ad. st.	New Zealand.	Capt. Stokes [P.].
b–e. Ad. et juv. sk.	New Zealand.	Colonial Museum, Wellington.

12. APHANAPTERYX.

Type.

Aphanapteryx, *Frauenfeld, Neu Abbild. Dronte*, 1868, p. C. . A. broeckii.

Range. Formerly living in Mauritius.

1. Aphanapteryx broeckii.

Pezophaps broeckii, *Schl. Mus. Pays-Bas*, Struthiones, p. 4 (1873).
Aphanapteryx imperialis, *Frauenf. Neu Abbild. Dronte*, 1868, p. 6, tab. 2; *id. Verh. z.-b. Ges. Wien*, xviii. p. 761 (1869).
Aphanapteryx broeckii, *Milne-Edwards, Ann. Sci. Nat.* (5) x. pp. 325–346, pls. 15–18 (1868); *id. Rech. Faune Orn. Eteinte des Isles Mascar.* p. 61, pl. 12. figs. 1–4 (1866–73); *id. Ois. Foss.* ii. p. 614, pls. 109, 110 (1869–71).

Hab. Mauritius; now extinct.

13. DIAPHORAPTERYX.

Type.

Diaphorapteryx, *H. O. Forbes, Bull. Brit. Orn. Club*, no. iv. p. xxi (Dec. 1892) ..... D. hawkinsii.

Range. Formerly living in the Chatham Islands.

1. Diaphorapteryx hawkinsii.

Aphanapteryx hawkinsii, *Forbes, Nature*, xlvi. 1892, p. 252.
Diaphorapteryx hawkinsii, *Forbes, Bull. Brit. Orn. Club*, no. iv. p. xxi (1892).

Hab. Chatham Islands; now extinct.

Various bones.	Chatham Islands.	W. Hawkins [C.].

14. ERYTHROMACHUS.

	Type.
Erythromachus, *Milne-Edwards, Ann. Sci. Nat.* (5) xix. art. 3, p. 6 (1874)	E. leguati.

Range. Formerly living in the island of Rodriguez.

1. Erythromachus leguati.

Erythromachus leguati, *Milne-Edwards, Ann. Sci. Nat.* (5) xix. art. 3, p. 6, pls. xi., xii. (1874).

Aphanapteryx leguati, *Günther & E. Newt. Phil. Trans.* vol. 168. pp. 431–32, pl. xliii. (1879).

Hab. Rodriguez; now extinct.

Various bones.	Rodriguez (*H. H. Slater*).	Transit of Venus Exped.

15. HIMANTORNIS.

	Type.
Himantornis, *Schl. Mus. Pays-Bas,* Ralli, p. 28 (1865)	H. hæmatopus.

Range. West Africa, from Liberia to the Gaboon.

1. Himantornis hæmatopus.

Himantornis hæmatopus, *Hartl. J. f. O.* iii. p. 357 (1855, *ex Temm. MSS. in Mus. Lugd.*); *id. Orn. W.-Afr.* p. 242 (1857: Gold Coast); *Cass. Proc. Philad. Acad.* 1859, p. 174 (Camma River); *Hartl. J. f. O.* 1861, p. 271; *Schl. Mus. Pays-Bas,* Ralli, p. 28 (1865); *Gray, Hand-l. B.* iii. p. 64, no. 10475 (1871); *Büttik. Notes Leyd. Mus.* vii. p. 245 (1885: Liberia), viii. p. 266 (1886), x. p. 103 (1888), xi. pp. 128, 137 (1889).

Hæmatornis himantopus, *Schl. Handl. Dierk.* ii. p. 448, pl. vii. fig. 88 (1857).

Adult. General colour above brown, mottled with black and rufous, the feathers having a rufous-brown margin with a large subterminal black mark, the edges of the feathers whitish near their ends, imparting a kind of streaked appearance; lesser and median wing-coverts like the back; bastard-wing, primary-coverts, greater coverts, and quills dusky brown, edged with rufous externally, paler on the outer primaries; tail-feathers dusky brown, externally rufous; crown of head dusky olive-brown, the hind neck like the back; a faintly indicated eyebrow of isabelline; sides of face isabelline, mottled with dusky tips to the feathers, with a broad band of whitish above the ear-coverts; throat white, with dusky tips to the feathers; remainder of under surface of body olive-brown, with paler olive margins, having a subterminal shade of somewhat darker brown: thighs pale olivaceous; lower flanks more decidedly brown; the under tail-coverts reddish brown; under

wing-coverts and axillaries blackish, the former broadly tipped with white; quills dusky below: "tip of bill horn-blue, with a tinge of rose-colour; ridge of bill black, the base of the lower mandible and a spot on each side of the base of the upper mandible grass-green; naked skin between bill and eyes bluish black; feet coral-red; iris brick-red" (*J. Büttikofer*). Total length 15 inches, culmen 1·4, wing 8·4, tail 3·6, tarsus 3·2, middle toe 2·2.

Nestling. Covered with tawny-buff down, paler on the under surface; head and nape black; a broad patch of black running down to the tail from the mantle, broader on the latter; a black patch on the ear-coverts.

Hab. West Africa, from Liberia to the Gaboon.

a. Ad. sk.	West Africa.	Zool. Society.
b. c. ♀ ad. sk.	Kaizarako, Denkera (*Gov. Ussher*).	Shelley Coll.
d. Pull.		

16. DRYOLIMNAS.

Type.

Calamodromus, pt., *Reichen. in Heine & Reichen. Nomencl. Mus. Hein.* p. 322 (1890).

Dryolimnas, *Sharpe, Bull. B. O. C.* no. v. p. xxviii (Jan. 1893) ..... D. cuvieri.

Range. Madagascar, Mauritius, Aldabra Island.

1. Dryolimnas cuvieri.

Rallus gularis (*nec Horsf.*), *Lesson, Traité*, p. 536 (1831: *ex Cuvier, MSS. in Mus. Paris*); *Guér.-Ménev. Iconogr. R. Anim. Cuv. Ois.* pl. 58. fig. 1 (1844); *Pucher. Rev. et Mag. de Zool.* 1851, p. 275; *Schl. Mus. Pays-Bas*, Ralli, p. 13 (1865); *id. P. Z. S.* 1866, p. 425; *id. & Poll. Faun. Madag.* ii. p. 134 (1868); *Hartl. Voy. Madag.* p. 337 (1877); *Milne-Edw. & Grand. Hist. Nat. Madag., Ois.* ii. p. 569, pl. 230 B. fig. 2, pl. 232 (1879); *Sibree, Ibis*, 1892, pp. 104, 114.

Le Râle de Madagascar, *Sganzin, Mém. Soc. Mus. Strasb.* 1840, p. 46.

Rallus cuvieri, *Pucher. Rev. et Mag. de Zool.* 1845, p. 279.

Eulabeornis gularis, *Gray, Gen. B.* iii. p. 595 (1846); *id. Hand-l. B.* iii. p. 56, no. 10372 (1871); *E. Bartlett, P. Z. S.* 1875, p. 68.

Rougetius bernieri, *Bp. C. R.* xliii. p 599 (1865); *Hartl. Faun. Madag.* p. 79 (1861); *E. Newt. Ibis*, 1863, p. 458; *Scl. P. Z. S.* 1863, p. 165; *A. Newt. P. Z. S.* 1865, p. 837.

Rougetius gularis, *Bp. C. R.* xliii. p. 599 (1856).

Canirallus kioloides (*nec Pucher.*), *Roch & E. Newt. Ibis*, 1863, p. 173.

Rallus bernieri, *Grandid. Rev. et Mag. de Zool.* 1868, p. 4; *Sharpe, P. Z. S.* 1870, p. 400.

Calamodromus bernieri, *Heine & Reichen. Nomencl. Mus. Hein.* p. 322 (1890).

Adult. General colour above greenish olive, with black mesial streaks to the feathers of the back and scapulars; lower back, rump,

and upper tail-coverts uniform greenish olive; wing-coverts like the back, but not streaked with black; bastard-wing, primary-coverts, and quills sooty brown, externally olive-green, the inner secondaries entirely of this colour and centred with black like the back; tail-feathers blackish, externally olive; crown of head and hind neck, sides of neck, and under surface of body deep vinous chestnut, a little washed with dull olive on the top of the head; cheeks and throat white; sides of body and flanks dark olive-brown; abdomen and thighs dusky, barred with fulvous or ashy buff; under tail-coverts blacker, with fulvescent bars; under wing-coverts and axillaries black, broadly barred with white; quills dusky, with an olive gloss: "bill dark pinkish olive, with black tip; feet dark olive; iris reddish" (*S. Roch*). Total length 9·5 inches, culmen 1·5, wing 6·7, tail 1·9, tarsus 1·85.

The amount of whitish barring on the abdomen varies greatly with individuals, and in some instances it is entirely absent. The specimens with uniform lower parts are apparently younger birds, as they are also less distinctly streaked on the back.

Hab. Madagascar and Mauritius.

a. Ad. st.	Madagascar.	E. Wilson, Esq. [P.].
b. Ad. sk.	Madagascar.	Sir E. Belcher [P.].
c, d. Ad. sk.	Madagascar.	Mr. Gerrard [C.].
e. Ad. sk.	Madagascar (*Rev. J. Wills*).	Gurney Coll.
f, g, h. Ad. sk.	Madagascar.	Shelley Coll.
i. Ad. sk.	Madagascar (*Pollen*).	Tweeddale Coll.
k, l. ♂ ♀ ad. sk.	Ankafana Forest, Feb., March (*W. D. Cowan*).	Tweeddale Coll.
m. ♀ ad. sk.	Ankafana, March 14.	Rev. W. Deans Cowan [C.].
n. Ad. sk.	Betsileo.	Rev. G. Shaw [C.].
o. Skeleton.	Madagascar.	Rev. W. Deans Cowan [C.].

Subsp. *a.* **Dryolimnas aldabranus.**

Rallus aldabranus, *Günther, Ann. & Mag. Nat. Hist.* (5) iii. pp. 164–168 (1879).

Adult (type of species). Similar to *D. cuvieri*, but much paler olive-brown, especially on the abdomen and sides of body, and with a somewhat shorter tarsus; the back very slightly streaked. Total length 10·5 inches, culmen 1·8, wing 4·65, tail 1·95, tarsus 1·55.

A younger bird has the abdomen banded with white, and the back uniform without dusky streaks.

Hab. Island of Aldabra.

a, b. Ad. et juv. sk.	Aldabra Island.	Capt. Wharton [P.]. (Types of species.)

17. CANIRALLUS.

Type.

Canirallus, *Bp. C. R.* xliii. p. 600 (1856, descr. nullâ), *undè* — C. oculeus.

Canirallus, *Hartl. Vög. Madag.* p. 350 (1877) ..... — C. kioloides.

Range. West Africa ; Madagascar.

Key to the Species.

a. Larger : throat bluish grey like the forehead and sides of face ; large white spots on the outer aspect of the quills ; wing-coverts olive like the back ..... *oculeus*, p. 72.

b. Smaller : throat white ; forehead and sides of face bluish grey ; small buff spots on the outer aspect of the quills ; wing-coverts deep chestnut like the back ..... *kioloides*, p. 73.

1. Canirallus oculeus *.

Gallinula oculea, *Hartl. J. f. O.* 1855, p. 357 (*ex Temm. MSS.*) ; *Gray, Hand-l. B.* iii. p. 67, no. 10506 (1871).

Canirallus oculeus, *Bp. C. R.* xliii. p. 600 (1856) ; *Hartl. Faun. Madag.* p. 80 (1862).

Rallus oculeus, *Hartl. Orn. W.-Afr.* p. 241 (1857) ; *Cass. Proc. Philad. Acad.* 1859, p. 174 (Camma River) ; *Sharpe, Ibis*, 1869, p. 195 (Fantee) ; *id. P. Z. S.* 1871, p. 614 (Cameroons) : *Ussher, Ibis*, 1874, p. 74 (Fantee) ; *Oust. N. Arch. Mus.* (2) ii. *Bull.* p. 142 (1879 : Gaboon) ; *Reichen. J. f. O.* 1890, p. 106 (Cameroons).

Hypotænidia oculea, *Hartl. J. f. O.* 1861, p. 274.

Rallina oculea, *Schl. Mus. Pays-Bas*, Ralli, p. 20 (1865) ; *Büttik. Notes Leyden Mus.* x. p. 102 (1888 : Liberia), xi. pp. 128, 137 (1889).

Adult. General colour above olive-brown, with a slight russet tinge on the rump ; wing-coverts like the back, the median and greater series blackish, externally olive, and conspicuously marked with large white spots or bands, these white markings having a black margin ; bastard-wing, primary-coverts, and quills blackish, externally shaded with olive, with the same large ovate spots and bars of white ; the innermost secondaries like the back, with a few reddish bars or spots ; upper tail-coverts and tail chestnut ; crown of head dark brown, this shade extending down the hind neck ; forehead and anterior part of crown, as well as the lores, anterior cheeks, and throat, light ashy grey ; sides of hinder crown, ear-coverts, hinder cheeks, sides of neck, lower throat, and entire breast rich vinous chestnut ; remainder of under surface of body dingy olive-brown, with a slight reddish tinge, the abdomen nearly

* This species has been included in the Avifauna of Papuasia, but without reason (*cf.* Salvad. Orn. Pap. iii. p. 284). The following is the synonymy :—

Rallus oculeus, *Gray, P. Z. S.* 1858, p. 197 (Louisiades).

Rallina oculea, *Gray, P. Z. S.* 1861, p. 438 (Mysol, Aru).

Rallus oculea, *Finsch, Neu-Guinea*, p. 181.

These synonyms probably refer to *Gymnoceres plumbeiventris*.

uniform, but the flanks, thighs, and under tail-coverts reddish white, the cross bars bordered with blackish; under tail-coverts like the lower flanks, but more tinged with chestnut; under wing-coverts and axillaries black, with large ovate spots and bars of pure white; quills blackish below, with broad white bars: "bill green; feet brown, soles yellow; iris reddish brown" (*J. Büttikofer*). Total length 13 inches, culmen 1·05, wing 7, tail 2·6, tarsus 2, middle toe and claw 0·85.

Young. Similar to the adult, but rather more ruddy olive-brown; the wings barred indistinctly with reddish buff and spotted with white, but the spots by no means so large as in the adults and always slightly tinged with fulvous; crown of head dark brown, with no grey on the sides of the face or forehead; sides of neck and under surface of body dull brown, with a reddish tinge, the lower flanks and thighs barred with dingy ochreous bars; under tail-coverts clear ochreous buff, with blackish bands; a slight tinge of vinous on the sides of the neck and breast.

A bird from Gaboon is similar to the true *R. oculeus*, but is more greenish olive above, and has a greater amount of grey on the face, the ear-coverts and greater part of cheeks being grey. Total length 13 inches, culmen 1·6, wing 6·9, tail 2·6, tarsus 2, middle toe and claw 2·05.

On comparing the series in the Museum, I find that the above specimen is approached by some of those from the Gold Coast, and it may be that the Gaboon bird belongs to a rather more brightly-coloured race.

Hab. West Africa, from Liberia to the Gold Coast.

a. Ad. sk.	Gold Coast.	Gould Coll.
b, c. Ad. sk.	Gold Coast.	Shelley Coll.
d. Ad.; *e, f, g.* Juv. sk.	Denkera (*Gov. Ussher*).	Shelley Coll.
h. Ad. sk.	River Volta (*Gov. Ussher*).	Shelley Coll.
i. Ad. sk.	Cameroons (*A. Crossley*).	Shelley Coll.
k. ♂ ad. sk.	Gaboon.	M. Verreaux.
l. Ad. st.	Gaboon.	M. Verreaux.

2. Canirallus kioloides.

Gallinula kioloides, *Pucher. Rev. et Mag. de Zool.* 1845, p. 279.
Corethrura griseifrons (descr. nullâ), *Gray, Gen. B.* iii. p. 595 (1846).
Ortygometra griseofrons, *Gray, t. c.* pl. 161 (1846).
Eulabeornis griseifrons, *Reichenb. Handb., Fulic.* Taf. ccevi. fig. 2475 (1851).
Canirallus kioloides, *Bp. C. R.* xliii. p. 600 (1856); *Hartl. Faun. Madag.* p. 80 (1861); *A. Newt. P. Z. S.* 1865, p. 836.
Rallina kioloides, *Schl. P. Z. S.* 1866, p. 425; *id. & Poll. Faune Madag., Ois.* p. 135, pl. xxxvi. (1878).
Porzana kioloides, *Grandid. Rev. et Mag. de Zool.* 1868, p. 4.
Gallinula griseofrons, *Gray, Hand-l B.* iii. p. 67, no. 10507 (1871).
Rallus griseifrons, *Sharpe, P. Z. S.* 1872, p. 868.
Canirallus griseifrons, *Hartl. Vög. Madag.* p. 350 (1877); *Milne-Edw. & Grand. Hist. Nat. Madag., Ois.* ii. p. 571, pls. 230 A. fig. 3, 233, 233 A, 233 B (1879); *Sibree, Ibis,* 1892, pp. 105, 114.

Adult. General colour above bright olive-brown, the scapulars like the back; lower back, rump, upper tail-coverts, and tail bright chestnut; lesser wing-coverts bright chestnut, the inner ones somewhat olivaceous; median and greater coverts olive-brown, with a slight wash of chestnut; bastard-wing, primary-coverts, and quills black, the bastard-wing feathers with white bars on the inner web, the quills chequered with rufous spots on the outer web and barred with white on the inner web; the inner secondaries ruddy olive with a rufous tinge; crown of head like the back; forehead and lores and feathers round eye ashy grey; sides of face and ear-coverts bright chestnut like the under surface; upper margin of ear-coverts olive-brown; throat white, with a faint dusky margin; sides of neck also chestnut like the under surface; lower abdomen, flanks, and thighs dusky olive, barred with blackish; under tail-coverts with rather more rufescent bars; under wing-coverts and axillaries black, broadly barred with white; quills below black, crossed by four rows of white or fulvous spots, forming bands: "bill bluish, blackish at the base; feet reddish brown; iris brown" (*A. Grandidier*). Total length 10·5 inches, culmen 1·1, wing 5·2, tail 2·1, tarsus 1·5.

Hab. Madagascar.

a. Ad. sk.	N.E. Madagascar (*A. Crossley*).	Shelley Coll.
b. Ad. sk.	Madagascar.	Sir A. Smith [C.].
c. Ad. st.	Madagascar.	E. Wilson, Esq. [P.]. (Type of *C. griseofrons*.)
d, *e*, *f*. ♂ ad. et juv. sk.	Forest of North Senbendra, Madagascar.	A. Majastre [C.].

18. RALLINA.

	Type.
Rallina, *Reichenb. Handb., Fulicar.* p. xxi (1846)	R. fasciata.
Euryzona, *Bp. C. R.* xliii. p. 599 (1856, descr. nullâ) ..	R. fasciata.

Range. India and Ceylon, through the Burmese countries and the Malayan Peninsula and Archipelago to N.E. Australia.

Key to the Species.

a. Wing-coverts broadly barred with white or buffy white; quills regularly banded with white below ..... *fasciata*, p. 75.

b. Wing-coverts uniform, or with a few zigzag irregular white bars.

a'. Throat white; brown colour of back ascending to the nape, leaving the head, sides of face, and lower throat and fore neck orange-chestnut; white bars on abdomen as distinct as the dusky ones ..... *superciliaris*, p. 76.

b'. Throat rufous or isabelline.

a''. Hind neck chestnut as well as the crown; mantle dark olive-brown like the back; white bars distinct on abdomen.

a'''. White spots on under wing-coverts larger; white bars on breast rather broad ..... *euryzonoides*, p. 78.

b'''. White spots on under wing-coverts and white bars on breast narrower ..... *minahasa*, p. 78.

b''. Hind neck and mantle rich chestnut like the head, throat, and chest; back slaty; fulvous bars on abdomen obsolete..... *tricolor*, p. 79.

1. Rallina fasciata.

Rallus fasciatus, *Raffl. Tr. Linn. Soc.* xiii. p. 328 (1822).
Gallinula euryzona, *Temm. Pl. Col.* v. p. 417 (1826).
Rallus ruficeps, *Cuvier, Mus. Paris*; *Less. Traité d'Orn.* p. 557 (1831).
Crex fasciata, *Blyth, J. A. S. Beng.* xi. p. 797 (1842).
Corethrura fasciata, *Gray, Gen. B.* iii. p. 595 (1846).
Porzana fasciata, *Blyth, Cat. B. Mus. As. Soc.* p. 285 (1849: Malacca, Penang); *Hume, Str. F.* ii. p. 483 (1874: Tenasserim).
Rallina euryzona, *Reichenb. Handb., Fulicariæ*, tab. cxx. fig. 1186 (1851)
Hypotænidia euryzona, *Reichenb. t. c.* p. 23 (1852).
Euryzona fasciata, *Bp. C. R.* xliii. p. 599 (1856).
Rallina fasciata, *Schl. Mus. Pays-Bas*, Ralli, p. 19 (1865); *id. N. T. D.* iii. p. 349 (1866); *Hartl. P. Z. S.* 1867, p. 831 (Pelew Islands); *Hartl. & Finsch, P. Z. S.* 1868, p. 7; *Gray, Hand-l. B.* iii. p. 58, no. 10390 (1871); *Salvad. Ucc. Born.* p. 337 (1874); *Wald. in Blyth's B. Burm.* p. 162 (1875); *id. Tr. Z. S.* ix. p. 231 (1875); *Finsch, Journ. Godeffr. Mus.* Heft viii. p. 37 (1875: Pelew Islands); *Hume & Davison, Str. F.* vi. p. 467 (1878: Tenasserim); *Hume, Str. F.* viii. p. 70 (Malay Peninsula), p. 113; *id. & Marsh. Game Birds Ind.* ii. p. 235, cum tab. (1879); *Sharpe, Ibis*, 1879, p. 271 (Lawas); *id. P. Z. S.* 1879, p. 352 (Labuan); *Brügg. Abhandl. Bremen*, v. p. 464 (1876: Moera Teweh); *Salvad. Orn. Papuasia*, iii. p. 264 (1882); *Oates, Handb. B. Br. Burm.* ii. p. 341 (1883); *Everett, J. As. Soc. Straits Branch*, 1889, p. 201; *Sharpe, Ibis*, 1890, p. 145 (Kina Balu); *Wiglesw. Abhandl. k. Zool. Mus. Dresden*, no. 6, p. 60 (1891); *Salvad. Ann. Mus. Genov.* (2) xii. p. 141 (1892: Engano).
Gallinago fasciata, *Sharpe, Ibis*, 1888, p. 203 (*lapsu*).

Adult male. General colour above ruddy brown, the scapulars like the back; the rump a little more olive-brown; upper tail-coverts and tail-feathers reddish brown; lesser and median coverts ruddy brown, with buffy white bars, each of which is margined with black; greater coverts black, rather broadly barred with white, as well as the bastard-wing and primary-coverts; quills blackish brown, chequered with white spots on the outer web, and barred with white on the inner one; the secondaries broadly barred and tipped with white, these white markings obsolete on the innermost rufous-brown secondaries; crown of head and neck, sides of face, ear-coverts, cheeks, throat, and chest chestnut, a little lighter on the throat; breast and sides of body white, broadly banded with black, the abdomen white; thighs white externally, ashy brown internally; under tail-coverts barred with black and white or rufous white; under wing-coverts and axillaries white, barred with black like the inner lining of the quills: "bill dark horny; orbital skin and gape vermilion; feet and exposed portion of tibia bright coral-red; iris dull cinnabar-red" (*W. Davison*). Total length 8·5 inches, culmen 0·95, wing 5·2, tail 1·9, tarsus 1·2.

Adult female. Similar to the male in colour, but a little browner and with less broad black bars on the under surface, the abdomen being therefore whiter: "bill plumbeous; feet coral-red; iris reddish brown" (*W. Davison*). Total length 9 inches, culmen 0·9, wing 4·9, tail 1·9, tarsus 1·5.

Young. Differs from the adult in being browner, the bands on the wing being buffy white; sides of face, fore neck, and chest ashy brown, with a rufous tinge, the throat whitish, as also the breast and abdomen, which have a few bars of dusky blackish on the sides of the body.

Hab. From the Burmese countries south through the Indo-Malayan region to Celebes and the Moluccas.

a, b. ♀ ad. sk.	Moulmein, August (*W. Davison*).	Hume Coll.
c, d. ♂ ad. sk.	Amherst, July 3 (*W. Davison*).	Hume Coll.
e–i. Ad. sk.	Penang (*Dr. Cantor*).	India Museum.
k, l. Ad. sk.	Malacca.	Capt. Charlton [P.].
m. Ad. sk.	Malacca.	W. Harvey, Esq. [P.].
n. Ad. sk.	Malacca (*Dr. Maingay*).	Tweeddale Coll.
o–v. Ad. sk.	Malacca, Jan., Feb., July, Aug. (*W. Davison*).	Hume Coll.
w. ♀ ad. sk.	Pulo Seban, Nov. 11 (*W. Davison*).	Hume Coll.
x. Ad. sk.	Singapore (*W. Davison*).	Hume Coll.
y, z. Ad. sk.	Sumatra.	Wallace Coll.
a'. Ad. sk.	Billiton.	Tweeddale Coll.
b'. ♂ ad. sk.	Taguso, Palawan, July 2.	J. Whitehead, Esq. [C.].
c'. Ad. et juv. sk.	Labuan (*Sir Hugh Low*).	Sharpe Coll.
d'. Ad. sk.	Labuan.	T. B. Moody, Esq. [P.].
e'. Ad. sk.	Labuan, Nov. 10.	A. H. Everett, Esq. [C.].
f'. ♂ ad. sk.	Sarawak, Sept. 20 (*A. H. E.*).	Hume Coll.
g'. Ad. sk.	Halmahéra.	Tweeddale Coll.
h'. Imm. sk.	Pelew Islands (*Cohen*).	Tweeddale Coll.

2. Rallina superciliaris.

The Rail, *Brown, Illustr. Zool.* pl. 37.

Rallus nigrolineatus, *Gray, List Grallæ Brit. Mus.* p. 117 (1844, *descr. nullâ*).

Zapornia nigrolineata, *Hodgs. in Gray's Zool. Misc.* p. 86 (1844, *nom. nudum*).

Rallus superciliaris, *Eyton, Ann. & Mag. N. H.* xvi. p. 230 (1845); *Hume, Str. F.* vii. p. 451 (1878), viii. p. 40 (1879).

Ortygometra superciliaris, *Hodgs. Icon. ined. in Brit. Mus.*, Grallæ, pl. 116 (no. 765); *Gray, Cat. Mamm. etc. Nepal*, p. 143 (1846).

Corethrura superciliaris, *Gray, Gen. B.* iii. p. 595 (1846).

Porzana ceylonica (*nec Gm.*), *Blyth, Cat. B. Mus. As. Soc.* p. 285 (1849); *Layard, Ann. & Mag. N. H.* xiv. p. 267 (1854); *Jerd. B. Ind.* iii. p. 725 (1864); *Hume, Str. F.* i. p. 440 (1873: Sind), iii. p. 188 (1875), iv. p. 405 (1876: Travancore), vii. p. 465 (1878).

Porzana superciliaris, *Blyth*, *Cat. B. Mus. As. Soc.* p. 339 (1849).
Corethrura zeylanica, *Kelaart*, *Prodr. Cat.* p. 135 (1852).
Euryzona euryzonoides, *Bp.* (*nec Lafr.*) *C. R.* xliii. p. 593 (1856).
Porzana zeylanica (*nec Gm.*), *Blyth*, *Ibis*, 1867, pp. 171, 309.
Porzana amauroptera, *Jerd. B. Ind.* iii. p. 725 (1864, *ex Blyth*, *MSS.*); *Blyth*, *Ibis*, 1867, p. 310; *Hume*, *Str. F.* i. p. 440 (1873), iii. p. 188 (1879).
Rallina euryzonides, *Gray* (*nec Lafr.*), *Hand-l.* iii. p. 58 (1871); *Tweedd. P. Z. S.* 1877, p. 767; *Hume*, *Str. F.* viii. p. 113 (1879); *Legge*, *B. Ceylon*, p. 772 (1879); *Hume & Marsh. Game B. Ind.* ii. p. 237, cum tab. (1879); *Oates*, *Handb. B. Br. Burm.* ii. p. 340 (1883).
Rallina ceylonica, *Holdsw. P. Z. S.* 1872, p. 476; *Wald. in Blyth*, *B. Burm.* p. 162 (1875).
Rallus telmatophila, *Hume*, *Str. F.* vii. p. 142 (1878); *id. t. c.* p. 451.
Rallina superciliaris, *Hume*, *Str. F.* viii. p. 70 (1879); *Salvad. Orn. Papuasia*, iii. p. 275 (1882).
Euryzona eurizonoides amauroptera, *Stejn. Proc. Bost. Soc. N. H.* xxiii. p. 462 (1888).

Adult male. General colour above dark olive-brown; the wings and tail like the back, excepting for a few white bars on the coverts, these bars having a conterminous black line above and below; quills dark brown, externally olive-brown; crown of head and hind neck, throat and chest bright chestnut; the chin and upper throat white: remainder of under surface of body white, barred with dusky black, the bands on the sides of the body being broader; abdomen white, with narrow dusky bars; under wing-coverts and axillaries barred with black and white like the under tail-coverts; sides of upper breast marked with olive-brown: "base of upper mandible and the greater portion of the lower one green; remainder of bill dark brown; legs black; claws dark horn-colour; iris blood-red; eyelids grey" (*E. W. Oates*). Total length 8·7 inches, culmen 1·2, wing 5·1, tail 2·3, tarsus 1·5.

Adult female. Similar to the male, but slightly more ruddy brown and without any white bars on the wing-coverts; the forehead, eyebrow, sides of face, lower throat, and chest bright chestnut, but the chin and upper throat white; the hinder crown and neck ruddy brown like the back.

Young. Differs from the adult in wanting the rufous on the head and throat, the latter being white with only a faint rufous tinge; the general colour above warm olive-brown; the head like the back, with a little rufous tinge on the forehead and eyebrow; chest olive-brown, with a rufous tinge in the centre.

Hab. India and Ceylon, to the Burmese countries and the Malayan Peninsula.

a f. ♂ ♀ ad.; *g.* Juv. sk.	Ceylon (*H. Nevill*).	Tweeddale Coll.
h, i. ♂ ♀ ad. sk.	Ceylon.	Hume Coll.
k. Ad. sk.	Ceylon.	E. L. Layard, Esq. [C.].
l, m. ♂ ♀ ad. sk.	Colombo, Ceylon, Oct., Nov. (*Hart*).	Hume Coll.
n. Ad. sk.	Mynall, S. Travancore.	Hume Coll.
o. ♂ ad. sk.	Cawnpore, June 6.	Hume Coll.

p. Juv. sk.	Nepal.	Hodgson Coll. (Type of *Zapornia nigrolineata*, Hodgs.)
q. Ad. sk.	Native Sikkim, Sept. (*L. Mandelli*).	Hume Coll.
r. Ad. sk.	Thayetmyo.	Tweeddale Coll.
s. Ad. sk.	Thayetmyo, May.	Oates Coll.
t. Ad. sk.	Malacca (*Dr. Cantor*).	India Museum.
u. Imm. sk.	Malacca, August.	Hume Coll. (Type of *R. telmatophila*.)
v, w, x. Imm. sk.	Malacca (*Dr. Maingay*).	Tweeddale Coll.
y. Imm. sk.	Singapore.	Gould Coll.

3. Rallina eurizonoides *. (Plate VIII. fig. 1.)

Gallinula eurizonoides, *Lafr. Rev. Zool.* 1845, p. 368.
Ortygometra eurizona, pt., *Gray, List Grall. Brit. Mus.* p. 117 (1844: spec. ex Manila).
Rallina fasciata (*nec Raffl.*), *Wald. Trans. Z. S.* ix. p. 231 (1875).
Rallina eurizonoides (*nec Lafr.*), *Tweedd. P. Z. S.* 1877, p. 767 (Cebu), 1878, p. 288 (Valencia, Negros), p. 345 (S. Leyte); *Guillem. P. Z. S.* 1885, p. 274 (Sulu Isl.).
Eurizona eurizonoides, *Stejn. Proc. Bost. Soc. N. H.* xxiii. p. 463 (1888).

Adult male. General colour above dark chocolate-brown; wings perfectly uniform, with a little rufous on the coverts; bastard-wing and primary-coverts blackish; quills also blackish brown, externally chocolate-brown like the back; tail-feathers like the back; head and hind neck, throat and chest deep vinous chestnut, the throat whitish; sides of breast olive-brown; sides of body and flanks, under tail-coverts, under wing-coverts, and axillaries black, barred broadly with white, the bars on the under tail-coverts tinged with rufous; thighs olive-brown: "bill blackish, the base tinged light green, tip greyish; legs dull greenish leaden, feet dark lead grey, nails grey; iris brilliant red" (*A. H. Everett*). Total length 8·5 inches, culmen 1·1, wing 5·3, tail 2·7, tarsus 1·55.

Hab. Philippine Islands.

a. Ad. sk.	Manila.	Hugh Cuming [C.].
b. Ad. sk.	Manila (*H. Cuming*).	Gould Coll.
c, d. ♂ ♀ ad. sk.	Cebu, April (*A. H. Everett*).	Tweeddale Coll.
e. ♂ ad. sk.	Valencia, Negros, Aug. (*A. H. E.*).	Tweeddale Coll.
f, g. ♂ ad.; *h.* ♀ ad. sk.	Amparo, Leyte, July, Aug. (*A. H. E.*).	Tweeddale Coll.
i, k, l. ♂ ad.; *m.* ♀ ad. sk.	South Leyte, Sept. (*A. H. E.*).	Tweeddale Coll.

4. Rallina minahasa. (Plate VIII. fig. 2.)

Rallus minahasa, *Wall. P. Z. S.* 1862, pp. 335, 346 (Sula Isl.; Minahasa); *Finsch, Neu-Guinea*, p. 181 (1865); *Schl. Nederl. Tijdschr. Dierk.* iii. p. 349 (1866); *Blasius, J. f. O.* 1883, p. 140.
Rallina tricolor, pt., *Schl. Mus. Pays-Bas*, Ralli, p. 18 (1865).

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* 2 *a*. RALLINA SEPIARIA.

Dr. Stejneger has described *Eurizona sepiaria* (Proc. U.S. Nat. Mus. x. p. 395, 1887), from the Liu Kiu Islands, as being closely allied to *R. eurizonoides*.

Rallina minahasa, *Gray, Hand-l. B.* iii. p. 58, no. 10401 (1871); *Blasius, J. f. O.* 1883, p. 140.

Adult male (type of species). Similar to *R. euryzonoides*, but with narrower white spots and bars on the under wing-coverts and breast. Differs from *R. tricolor* in being browner above and not so ashy; the lower breast, abdomen, and sides of body black, with regular narrow cross bars of white; long under tail-coverts black, with olive-brown ends. Total length 10·5 inches, culmen 1·05, wing 5·3, tail 2·4, tarsus 1·5, middle toe and claw 1·75.

Hab. Celebes and Sula Islands.

a. ♂ ad. sk.	Tondano, N. Celebes.	Wallace Coll. (Type of species.)
b. Ad. sk.	Celebes.	Tweeddale Coll.
c. Ad. sk.	Sula Islands.	Wallace Coll.

5. Rallina tricolor.

Rallina tricolor, *Gray, P. Z. S.* 1858, p. 188 (Aru Islands); *id. Cat. B. New Guinea*, pp. 52, 62; *id. P. Z. S.* 1859, p. 159 (Dorey); *id. P. Z. S.* 1861, p. 438; *Rosenb. J. f. O.* 1864, p. 283; *Schl. Mus. Pays-Bas*, Ralli, p. 18 (1865); *id. N. T. D.* iii. p. 349 (1866); *Gould, P. Z. S.* 1866, p. 218 (Cape York); *Rosenb. Reis naar Zuidoostereil.* p. 53 (1867); *Gould, B. Austr. Suppl.* pl. 78 (1869); *Gray, Hand-l. B.* iii. p. 58, no. 10400 (1871); *Sel. P. Z. S.* 1877, p. 113 (Duke of York Isl.); *Ramsay, t. c.* p. 345 (Rockingham Bay; nesting); *Rosenb. Malay. Archip.* p. 373 (Aru), p. 396 (1878); *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 297 (1878: Laloki River); *D'Albert. & Salvad. Ann. Mus. Genov.* xiv. p. 129 (1879: Fly River); *D'Albert. Nuova Guin.* p. 588 (1880); *Salvad. Ann. Mus. Genov.* xviii. p. 320 (1882); *id. Orn. Papuasia etc.* iii. p. 265 (1882); *Meyer, Abbild. Vogel-Sk.* pts. 4 & 5, p. 33, Taf. 42 (1883); *id. Zeitschr. ges. Orn.* i. p. 294 (1884: egg); *Nehrk. J. f. O.* 1885, p. 35 (Waigiou); *Ramsay, Tab. List Austr. B.* p. 21 (1888); *Salvad. Agg. Orn. Papuasia*, iii. p. 196 (1891).

Rallus tricolor, *Gray, P. Z. S.* 1858, p. 197; *Finsch, Neu-Guinea*, p. 181 (1865); *Rosenb. Malay. Arch.* p. 563 (1878–79).

Adult male (type of species). General colour above dark slaty brown, with a slight tinge of olive, especially on the wings, the quills with whitish bars on the inner webs, sometimes faintly traceable on the outer webs of the primaries; innermost secondaries uniform like the back; tail-feathers blackish brown, with a slight tinge of ruddy brown, which also pervades the lower back and rump; crown of head, hind neck, and upper mantle, as well as the sides of the face and cheeks, sides of neck, fore neck, and breast, rich vinous chestnut, the sides of the face rather lighter chestnut; throat isabelline whitish, becoming gradually chestnut on the lower throat; remainder of under surface dark slaty grey, with a few bars of sandy buff, more distinct on the lower flanks and under tail-coverts; thighs uniform light ashy grey; under wing-coverts and axillaries black, with very broad and distinct bands of white; quills blackish below, with white bars on the inner web; "bill greenish; feet blackish lead-colour; iris red" (*D'Albertis*). Total length 11·5 inches, culmen 1·35, wing 5·7, tail 2·5, tarsus 1·35, middle toe 1·9.

As a rule the bars on the abdomen are distinctly fulvescent or ochraceous, but a specimen from Port Moresby has the bars whitish and also many of the upper tail-coverts *black*. The Dorey specimen and also the one from Duke of York Island are so similar to those from Australia, that I cannot believe that the bird from S.E. New Guinea will prove to be distinct. It is, however, desirable that specimens from this part of Papuasia should be examined.

Hab. N.E. Australia and Cape York peninsula; Duke of York Island; New Guinea; Mysol; Waigiou; Aru Islands.

a. Ad. sk.	Rockingham Bay (*E. P. Ramsay*).	Gould Coll.
b, *c*. Ad. sk.	Port Denison (*J. T. Cockerell*).	Salvin-Godman Coll.
d, *e*, *f*. Ad. sk.	Cape York (*J. T. Cockerell*).	Salvin-Godman Coll.
g, *h*. Ad. et imm. sk.	Cape York.	Gould Coll.
i. ♀ ad. sk.	Duke of York Island (*G. Brown*).	Tweeddale Coll.
k. Ad. sk.	Port Moresby, S.E. New Guinea.	A. Goldie [C.].
l. ♂ ad. sk.	Dorey.	Wallace Coll.

19. CASTANOLIMNAS.

Type.

Castanolimnas, *Sharpe*, *Bull. Brit. Orn. Club*, no. v. p. xxviii (Jan. 1893) ..... C. canningi.

Range. The same as that of the single species.

1. Castanolimnas canningi.

Eurvzona canningi, *Blyth*, *Ibis*, 1863, p. 119 (Andamans); *Beav. Ibis*, 1867, p. 333; *Ball, J. A. S. Beng.* xli. p. 288 (1872: Hopetown); *id. Str. F.* i. p. 86 (1873); *Hume*, *Str. F.* ii. pp. 302, 500 (1874).

Rallina canningi, *Gray*, *Hand-l. B.* iii. p. 58, no. 10398 (1871); *Hume*, *Str. F.* viii. p. 113 (1879); *id. & Marsh. Game Birds Ind.* ii. p. 241 (1879); *Oates, ed. Hume's Nests & Eggs Ind. B.* iii. p. 398 (1890).

Adult male. General colour above maroon-chestnut; the wing-coverts and inner secondaries like the back; bastard-wing feathers externally chestnut, blackish on the inner web with reddish-buff bars; primary-coverts reddish brown; quills blackish, externally rufous with blackish bars, the outer web chequered with rufous spots, the inner webs barred rather broadly with rufous-white bars, the secondaries externally unspotted but barred on the inner web with rufous bars; tail chestnut; entire head and neck as well as the throat, fore neck, and chest maroon-chestnut like the back; breast, abdomen, sides of body, flanks, thighs, and under tail-coverts barred with black and white, the bars much narrower on the latter portions of the body; under wing-coverts and axillaries broadly barred with black and white: "bill delicate pale green; legs and feet olive-green; iris red" (*R. J. Wimberley*). Total length 11·5 inches, culmen 1·25, wing 6·1, tail 3·25, tarsus 2.

Adult female. Similar to the male in colour. Total length 12 inches, culmen 1·15, wing 6, tail 3, tarsus 2.

Hab. Confined to the Andaman Islands.

a, b. ♂ ♀ ad. sk.	South Andamans, March, April (*R. J. Wimberley*).	Hume Coll.
c. ♀ ad. sk.	South Andamans, April (*R. J. Wimberley*).	Tweeddale Coll.
d–h. ♂ ad.; *i–n.* ♀ ad. sk.	Port Blair, March (*R. J. Wimberley*).	Hume Coll.

20. CRECOPSIS.

Crecopsis, *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxviii (Feb. 1893) ..... Type. C. egregia.

Range. Confined to Africa.

1. Crecopsis egregia.

Crex egregia, *Peters, MB. k. Akad. Berlin*, 1854, p. 134 (Mozambique); *Sharpe, ed. Layard's B. S. Afr.* p. 612 (1884); *Ayres, Ibis*, 1885, p. 346, 1886, p. 292 (Potchefstroom).

Ortygometra sp., *Licht. Nomencl. Av.* p. 96 (1854).

Ortygometra fasciata, *Heugl. Syst. Uebers.* p. 64 (1856: descr. nullâ); *id. J. f. O.* 1863, p. 27.

Ortygometra angolensis, *Hartl. Ibis*, 1862, p. 340; *Mont. t. c.* p. 335; *Sharpe, P. Z. S.* 1870, p. 147; *id. Ibis*, 1870, p. 487 (Fantee).

Ortygometra egregia, *Finsch & Hartl. Vög. Ostafr.* p. 778 (1870); *Gray, Hand-l. B.* iii. p. 62, no. 10456 (1871); *Heugl. Orn. N.O.-Afr.* ii. pt. 2, p. 1241 (Gondokoro), App. p. cxcvi (1871); *Sharpe & Bouvier, Bull. Soc. Zool. France*, iii. p. 79 (1878: Boma); *Sharpe, in Oates' Matebele Ld.* App. p. 324 (1881: Gubuleweyo); *Bocage, Orn. Angola*, p. 479 (1881); *Boehm, J. f. O.* 1882, p. 188 (Kakoma, May); *Schalow, J. f. O.* 1883, p. 340 (Kakoma, Dec.); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 119 (1881: Lado); *Pelz. Verh. z.-b. Gesellsch. Wien*, xxxi. p. 155 (1881: Mahagi); *Bocage, Jorn. Lisb.* (2) ii. p. 84 (1891).

Adult. General colour above olive-brown, mottled with black centres to the feathers; scapulars like the back; lower back, rump, and upper tail-coverts blackish, with sandy-brown margins; wing-coverts olive-brown like the back, but with less conspicuous black centres; greater series black, with brown margins; bastard-wing, primary-coverts, and quills uniform blackish, the innermost secondaries resembling the greater coverts; tail-feathers blackish, edged with olive-brown; crown of head like the back but darker, with longitudinal blackish centres to the feathers; hind neck more uniform than the back; lores, eyebrow, and sides of face bluish grey, with a supraloral streak of white; cheeks and throat pure white; sides of neck bluish grey, like the lower throat, fore neck, and chest: breast and abdomen white, barred with black, more broadly on the sides of the body and flanks, the sides of the vent tinged with vinous buff; thighs brown externally, white internally; under tail-coverts white, broadly barred with black: under wing-coverts nearly uniform blackish, with white bars; axillaries blackish, barred with white; quills below uniform dusky brown: "bill—upper part of upper mandible dark slate-colour, lower part near the

tip lighter slate-colour, lower part of base of upper mandible and whole of base of lower mandible magenta, of a lilac tinge; tip of lower mandible whitish; feet dusky flesh-colour; orbital skin vermilion; iris crimson-lake" (*F. Oates*). Total length 9 inches, culmen 1, wing 4·8, tail 1·6, tarsus 1·55.

Young. More brown than the adults, and not so olive; the lower back and rump blackish; the eyebrow brown; the sides of the face ashy grey washed with brown; lower throat, fore neck, and breast brown instead of bluish grey; the bars on the under surface broader and not so distinct as in the adults.

Hab. Nearly the whole of Tropical Africa.

a. Ad. sk.	Gambia.	Purchased.
b. Ad. sk.	Gambia (*Sir A. Moloney*).	Shelley Coll.
c. Ad. sk.	Fantee (*Dr. R. B. Hinde*).	Shelley Coll.
d. Ad. sk.	Accra (*J. Smith*).	Shelley Coll.
e. Ad. sk.	Elobe District, Gaboon.	H. Ansell, Esq. [P.].
f. Ad. sk.	Angola.	Monteiro Coll. (Type of *O. angolensis*.)
g. ♂ imm. sk.	Pinetown, Natal, March 19 (*T. L. Ayres*).	Shelley Coll.
h. ♀ ad. sk.	Potchefstroom, July 6 (*T. Ayres*).	Gurney Coll.
i. Ad. sk.	Gubuleweyo, Dec. 26 (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
k. Ad. sk.	Red Sea, 30 miles off the African Coast, about midway between Suez and Aden, Nov. 22 (*General Maister*).	Shelley Coll.

21. CREX.

Type.

Crex, *Bechstein, Orn. Taschenb.* p. 336 (1802) ..... C. crex.

Range. The same as that of the single species of the genus.

1. Crex crex.

The Land-Raïl, or Daker-Hen, *Albin, Nat. Hist. B.* i. p. 30, pl. 32 (1738).

Le Rasle de Genet, ou Roi de Cailles, *Briss. Orn.* v. p. 159, pl. 13. fig. 2 (1760).

Rallus crex, *Linn. Syst. Nat.* i. p. 261 (1766); *Gm. Syst. Nat.* i. p. 711 (1788); *Pall. Zoogr. Rosso-Asiat.* ii. p. 153 (1811: Russia and Siberia to the R. Lena); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 553 (1819); *Roux, Orn. Prov.* pl. 328 (1825); *Wright, Ibis*, 1864, p. 49 (Malta).

Le Râle de Terre, ou de Genêt, *Buff. Hist. Nat. Ois.* viii. p. 146 (1781).

Le Râle de Genêt, *Daubent. Pl. Enl.* ix. pl. 750.

Crake Gallinule, *Lath. Gen. Syn.* iii. pt. 1, p. 250 (1785).

Gallinula crex, *Lath. Ind. Orn.* ii. p. 766 (1790); *Forster, Syn. Cat. Brit. B.* p. 27 (1817); *Temm. Man. d'Orn.* ii. p. 687 (1820); *Werner, Atlas, Gralles*, pl. 34 (1827); *Gould, B. Eur.* iv. pl. 341

(1837); *Crespon, Orn. Gard,* p. 447 (1840); *Fallon, Ois. Belg.* p. 182 (1875).

Crex pratensis, *Bechst. Gemeinn. Naturg. Deutschl.* ii. p. 461 (1805); *id. Orn. Taschenb.* p. 337 (1812); *Naum. Vög. Deutschl.* ix. Taf. 236 (1838); *Keys. & Blas. Wirb. Eur.* p. lxviii (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 274 (1849: Crimea); *Selys-Longch. Faune Belge,* p. 117 (1842); *Schl. Rev. Crit.* p. civ (1844); *Hewits. Eggs Brit. B.* ii. p. 317, pl. lxxxix. fig. 1 (1852); *Thomps. B. Irel.* ii. p. 311 (1850); *Kjærb. Orn. Dan.* pl. 38. fig. 1 (1853); *Macgill. Br. B.* iv. p. 527 (1852); *Reichenb. Handb.* Fulic. Taf. cxvi. figs. 1152–1157 (1852); *Schl. Vog. Nederl.* pl. 256 (1854); *Heugl. Syst. Uebers.* p. 64 (1856); *Baird, Cass. & Lawr. B. N. Amer.* p. 751 (1858); *Powys, Ibis,* 1860, p. 349 (Corfu); *Schl. Dier. Nederl. Vog.* pl. 26. figs. 6, 7, 8 (1861); *Gould, B. Gt. Br.* iv. pl. 87 (1863); *Gurney, Ibis,* 1863, p. 331 (Natal); *Schl. Mus. Pays-Bas,* Ralli, p. 25 (1865); *Godman, Ibis,* 1866, pp. 102, 107 (Azores); *Blake-Knox, Zool.* s. s. p. 679 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 253 (1867); *Blyth, Ibis,* 1867, p. 172 (Oudh); *Baird, t. c.* p. 282 (Greenland); *Loche, Expl. Sci. Algér., Ois.* p. 343 (1867); *Tristr. Ibis,* 1868, p. 327 (Palestine); *Smith, t. c.* p. 455 (Portugal); *Borggr. Vogelf. Norddeutschl.* p. 106 (1869); *Bettoni, Ucc. nidif. Lomb.* tav. 92 (1870); *Godman, Azores,* p. 36 (1870); *Elwes & Buckley, Ibis,* 1870, p. 333 (Turkey); *Saunders, Ibis,* 1871, p. 224 (S. Spain); *Salvad. Faun. Ital., Ucc.* p. 229 (1871); *R. Gray, B. W. Scott.* p. 331 (1871); *Alst. & Harvie Brown, Ibis,* 1873, p. 67 (Archangel); *Severtz. Turkest. Jevotn.* p. 69 (1873); *Coues, Key N. Amer. B.* p. 274 (1872); *Saxby, B. Shetl.* p. 20 (1874); *Buckley, Ibis,* 1874, p. 388 (Drakensburg Mts.); *Durnf. t. c.* p. 397 (N. Frisian Isl.); *Gurney, Ibis,* 1875, p. 141 (Algeria); *Cordeaux, t. c.* p. 186 (Heligoland); *Danf. & Harvie Brown, t. c.* p. 418 (Transylvania); *Dresser, Ibis,* 1876, p. 413; *Blanf. East. Persia,* ii. p. 288 (Teheran); *Finsch, Ibis,* 1877, p. 54 (Marka Kul); *Ayres, t. c.* p. 351 (Transvaal); *Dresser, B. Eur.* vii. p. 291, pl. 499 (1878); *Collin, Skandin. Fugle,* Taf. xxxviii. fig. 1 (1879); *Finsch, Verh. z.-b. Gesellsch.* xxix. p. 255 (1879); *Ayres, Ibis,* 1879, p. 351 (Transvaal); *Seebohm, Ibis,* 1880, p. 193 (Krasnoyarsk); *Bidd. t. c.* p. 98 (Gilgit); *Scully, t. c.* p. 591; *Sharpe, in Oates' Matabele Land,* App. p. 324 (Tati); *Seebohm, Ibis,* 1882, p. 226 (Astrachan); *Shelley, t. c.* p. 366 (Palatswie Pan); *Seebohm, t. c.* p. 382 (Archangel); *B. O. U. List Br. B.* p. 149 (1883); *Booth, Rough Notes,* ii. (c. 1882); *Marsch. & Pelz. Orn. Vindob.* p. 117 (1882); *Seebohm, Ibis,* 1883, p. 27 (Caucasus); *Saunders, ed. Yarr. Brit. B.* iii. p. 157 (1883); *Chapm. Ibis,* 1884, p. 98 (Spain); *Eagle Clarke, t. c.* p. 148 (Slavonia); *Saunders, t. c.* p. 388 (Pyrenees); *Seebohm, Brit. B.* ii. p. 535, pl. 2 (1884); *Park, F. & S.* xxii. p. 44 (1884: New York, Nov.); *Jones, t. c.* p. 303 (Newfoundland; Bermuda); *Tristr. Faun. & Flor. Palest.* p. 125 (1884); *Radde, Orn. Cauc.* p. 376 (1884); *Coues, Key N. Amer. B.* p. 110 (1884); *Young, Auk,* i. p. 399 (1884: Atlantic); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 381 (1884); *Dixon, Ibis,* 1885, p. 361 (St. Kilda); *Fischer, J. f. O.* 1885, p. 117 (Zanzibar); *Büchner, t. c.* p. 207 (St. Petersburg); *Sharpe, Ibis,* 1886, p. 167 (Muscat); *id. t. c.* p. 490 (Fao); *Gigl. Avif. Ital.* p. 352 (1886); *Olphe-Galliard, Contr. Faun. Orn. Eur. Occ.* fasc. xvi. p. 35 (1887); *Reichen. J.f. O.* 1887, p. 48 (Kagehi); *Müller, t. c.* p. 178 (Hesse); *Hartert, t. c.* p. 265 (Niederrhein); *Salvad. Elench. Ucc. Ital.* p. 224 (1887); *Tait, Ibis,* 1887, p. 382

(Portugal); *Lilford*, *Ibis*, 1889, p. 336 (Cyprus); *Gigl. Avif. Ital.* 1st Resoc. p. 546 (1889); *Koenig*, *J. f. O.* 1890, p. 313 (Madeira); *Reiser*, *Vög. Mus. Sarajevo*, p. 116 (1891); *Maclaine*, *Scot. Nat.* i. p. 94 (1891); *Gätke*, *Vogelw. Helgoland*, p. 530 (1891); *Seebohm*, *Ibis*, 1892, p. 25 (Heligoland).

Ortygometra crex, *Leach*, *Syst. Cat. Mamm. & B. Brit. Mus.* p. 34 (1816); *Steph. in Shaw's Gen. Zool.* xii. pt. 1, p. 218, pl. 26 (1824); *Gray*, *List Grallæ Brit. Mus.* p. 117 (1844); *id. Gen. B.* iii. p. 593 (1846); *Rüpp. Syst. Uebers.* p. 128 (1845); *Sundev. Svensk. Fogl.* pl. 45. fig. 2 (1856); *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 490 (1859); *Reinh. Ibis*, 1861, p. 11 (Greenland); *Gray*, *List Brit. B.* p. 178 (1863); *More*, *Ibis*, 1865, p. 439; *Layard*, *B. S. Afr.* p. 338 (1867); *id. Ibis*, 1869, p. 377; *Doderl. Avif. Sicil.* p. 199 (1869); *Fritsch*, *Vög. Eur.* Taf. 32. figs. 2, 6 (1870); *id. J. f. O.* 1871, p. 351 (Bohemia); *Heugl. Orn. N.O.-Afr.* ii. p. 1242 (1871); *Gray*, *Hand-l. B.* iii. p. 62, no. 10450 (1871); *Shelley*, *B. Egypt*, p. 274 (1872); *Irby*, *B. Gibr.* p. 142 (1875); *Ayres*, *Ibis*, 1877, p. 351 (Lydenburg); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 119 (1881: Lado); *Madarász*, *Ausst. Ungar. Vogelf.* p. 112 (1891).

Crex herbarum, *Brehm*, *Vög. Deutschl.* p. 694 (1831).

Crex alticeps, *Brehm*, *t. c.* p. 694 (1831).

The Corn-Crake, *Yarr. Br. B.* iii. p. 6 (1843).

Crex crex, *Sharpe*, *ed. Layard's B. S. Afr.* p. 611 (1884); *A. O. U. Check-l. N. Am. B.* p. 143 (1886); *Dutcher*, *Auk*, iii. p. 435 (1888: Long Is.); *Ridgw. Man. N. Amer. B.* p. 140 (1887); *Dutcher*, *Auk*, v. p. 177 (1888: Long Is.); *Sharpe*, *Ibis*, 1891, p. 111 (Fao); *Hartert*, *Ibis*, 1892, p. 513 (E. Prussia); *Shelley*, *Ibis*, 1893, p. 29 (Zomba).

Adult male in summer plumage. General colour above brown, mottled with black centres to the feathers, which have more or less of an ashy shade on their margins: scapulars like the back, with broad black centres; wing-coverts uniform bright chestnut; bastard-wing, primary-coverts, and quills chestnut-brown, the first primary externally isabelline buff, the inner secondaries like the back, with black centres, and indistinguishable from the scapulars; tail-feathers light reddish brown, centred with black: crown of head fulvous brown, mottled with black centres to the feathers, the two colours arranged in streaks; hind neck and sides of neck fulvous brown, with smaller blackish-brown spots; lores and feathers below the eye, as well as a band along the upper ear-coverts to the sides of the neck sandy buff; above the eye a band of ashy grey, widening towards the sides of the nape: ear-coverts, cheeks, lower throat, fore neck, and chest ashy grey; the chin and upper throat isabelline; breast and abdomen isabelline as well as the under tail-coverts; sides of upper breast brown, with a few white bars; flanks sandy rufous or rufous brown, the feathers tipped and barred with isabelline or whitish; sides of vent barred with darker brown; thighs sandy rufous; shorter under tail-coverts barred with rufous and brown; under wing-coverts and axillaries bright chestnut; quills below brown, rufescent along the inner edge: "bill, feet, and claws pale brown; iris hazel" (*H. Seebohm*). Total length 10 inches, culmen 0·85, wing 5·6, tail 1·9, tarsus 1·45.

Adult female. Similar to the male, and having the same grey on the eyebrow, face, and breast. Total length 9 inches, culmen 0·9, wing 5·3, tail 2, tarsus 1·5, middle toe and claw 1·5.

Adults in winter plumage. As in summer, but instead of the grey on the eyebrow, sides of face, and breast, these parts are all ochreous brown, and the sides of the body are decidedly more rufescent, with distinct and broad bars of black on the sides of the body and under tail-coverts; the wing-coverts also have distinct whitish bars, particularly on the greater series, where these bars have blackish or dusky margins.

The grey shading on the eyebrow and breast is assumed by a change of feathers and not by a moult.

Young after first moult. Similar to the winter plumage of the adults and lacking the grey on the face and breast, and having the sides of the body nearly uniform tawny, with a few dusky bars and whitish tips to the feathers.

Nestling. Covered with black down.

Hab. The greater part of Europe and as far east as the Yenesei in Siberia, Central Asia, and Muscat in Arabia, wintering in Africa. Occasional in N. America and Greenland.

a, b. Ad. sk.	England.	Hume Coll.
c. Pull. sk.	England.	Gould Coll.
d. Ad. sk.	Orkney Islands.	Gould Coll.
e. Ad. sk.	Whitehill, Midlothian, June 8 (*R. G. W. R.*).	Tweeddale Coll.
f. Ad. st.	Northamptonshire, June.	Colonel Irby [P.].
g, h. Ad.; *i, k, l.* Pull. st.	Cambridgeshire.	Purchased.
m. Ad. st.	Kingsbury, Middlesex, May.	Harting Coll.
n. Ad. sk.	Park Hatch, Surrey, Sept. (*F. D. G.*).	Salvin-Godman Coll.
o, p. Ad. st.	Cookham, Berks.	Mr. W. Briggs.
q. Ad. sk.	New Forest, Hampshire, June 7.	C. B. Wharton, Esq. [P.].
r. Ad. sk.	Avington, Hants, Sept.	Sharpe Coll.
s. Ad. sk.	Avington, Sept. 10.	Shelley Coll.
t. Ad. sk.	Carmarthenshire.	Montagu Coll.
u, v, w. Ad. st.	Ireland, April.	F. Thackray, Esq. [P.].
x. Ad. sk.	Bodö, Norway, June 20 (*F. D. G.*).	Salvin-Godman Coll.
y. Ad. sk.	Morocco.	Tweeddale Coll.
z. ♀ ad. sk.	Damietta, Egypt (*Filipponi*).	Shelley Coll.
a'. ♂ ad. sk.	Mount Hermon, Palestine.	Canon Tristram [C.].
b'. ♂ ad. sk.	Burgasskeuy, Turkey, Sept. (*T. Robson*).	Sharpe Coll.
c. ♂ ad. sk.	Asia Minor, May 8 (*T. Robson*).	Tweeddale Coll.
d'. Ad. sk.	Persia.	Old Collection.
e', f', g'. Ad. sk.	Fao, Persian Gulf.	W. D. Cumming, Esq. [P.].
h'. Ad. sk.	Muscat.	Colonel Mills [P.].

i'. Ad. sk.	Kashgar, Sept. 15.	Rev. Dr. Lansdell [C.].
k'. Ad. sk.	S.E. Africa.	John Rocke, Esq. [P.].
l'. Ad. sk.	Natal.	T. Ayres [C.].
m'. ♂ ad. sk.	Pinetown, Natal, March 19 (*T. L. Ayres*).	Shelley Coll.
n'. ♂ ad. sk.	Zulu-land, June (*Gordge*).	Shelley Coll.
o'. ♂ ad. sk.	Potchefstroom, Transvaal, March 10 (*T. Ayres*).	Gurney Coll.
p'. ♀ ad. sk.	Macamac, Dec. 3.	F. A. Barratt [C.].
q'. ♂ ad. sk.	Tati, Matabele-land, Mar. (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
r'. Ad. sk.	Zomba, Nyassaland, Jan. 11 (*A. Whyte*).	H. H. Johnston, Esq. [P.].
s'. Ad. sk.	100 miles at sea S. of Madagascar.	Capt. Beckett [P.].
t'. Skeleton.	England.	Dr. Günther [P.].
u'. Skeleton.	England.	Purchased.
v', *w'*. Skulls.	S. Germany.	Dr. Günther [C.].
x'. Sternum.		Purchased.

22. ŒNOLIMNAS.

Type.

Œnolimnas, *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxviii (Feb. 1893) ..... Œ. isabellina.

Range. Confined to Celebes.

1. Œnolimnas isabellina.

Euryzona isabellina (*ex Temm. MSS.*), *Bp. C. R.* xliii. p. 599 (1856; descr. nullâ).

Rallina isabellina, *Schl. Mus. Pays-Bas*, Ralli, p. 16 (1865, *ex Temm. MSS.*: Gorontalo, Ayer-Pannas, Modelido); *Gray, Hand-l. B.* iii. p. 58, no. 10397 (1871); *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 95 (1876); *Meyer, Ibis*, 1879, p. 142 (Menado); *Blasius, J. f. O.* 1883, p. 140.

Rallus isabellinus, *Walden, Trans. Z. S.* viii. p. 96 (1872).

Amaurornis isabellina, *Blasius, Zeitschr. ges. Orn.* iii. p. 158 (1886).

Erythra isabellina, *Salvad. Ann. Mus. Genov.* vii. p. 679 (1875: Menado).

Onolimnas isabellina, *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxviii (1893).

Adult. General colour above olive-brown with an ashy tinge; wing-coverts, bastard-wing, and primary-coverts like the back; quills and tail-feathers reddish brown, externally olive-brown; crown of head like the back; lores and feathers below the eye dusky with a faint reddish tinge; cheeks and throat vinous isabelline; ear-coverts and sides of neck darker vinous rufous; rest of under surface of body from the fore neck downwards vinous chestnut, including the under wing-coverts and axillaries; quills below bronzy brown. Total length 9 inches, culmen 1·4, wing 6·2, tail 2·45, tarsus 2·4, middle toe and claw 2·6.

Hab. Celebes.

a. Ad. sk.	Celebes.	Tweeddale Coll.

23. AMAUROLIMNAS.

Type.

Amaurolimnas, *Sharpe, Bull. Brit. Orn. Club,* no. v. p. xxviii (Feb. 1893) ..... A. concolor.

Range. The same as that of the single species of the genus.

1. Amaurolimnas concolor.

Rallus castaneus, *Cuv. MSS. in Mus. Paris*; *Less. Traité*, p. 537 (1831; descr. nullâ); *Pucher. Rev. et Mag. de Zool.* 1851, p. 279.
Rallus concolor, *Gosse, B. Jamaica*, p. 369, pl. 103 (1847); *Albrecht, J. f. O.* 1862, p. 206; *March, Proc. Philad. Acad.* 1864, p. 69.
Rallina concolor, *Reichenb. Handb.* Fulicariæ, Taf. cccxxii. fig. 2577 (1851).
Rufirallus castaneus, *Bp. C. R.* xliii. p. 599 (1856).
Rufirallus boecki, *Bp. C. R.* xliii. p. 599 (1856).
Corethrura cayennensis (*nec Gm.*), *Moore, P. Z. S.* 1859, p. 64; *Scl. & Salv. Ibis*, 1859, p. 230.
Corethrura guatemalensis, *Lawr. Proc. Philad. Acad.* 1863, p. 106.
Rallina castanea, *Schl. Mus. Pays-Bas*, Ralli, p. 17 (1865).
Porzana concolor, *Scl. & Salv. P. Z. S.* 1868, p. 452; *Pelz. Orn. Bras.* p. 316 (1871: R. Guaporè); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Scl. Ibis*, 1873, p. 373 (Nicaragua); *A. & E. Newt. Handb. Jamaica*, p. 114 (1881); *Salvin, Ibis*, 1886, p. 176 (Merumé Mts.); *Cory, B. W. Ind.* p. 255 (1889); *Scott, Auk*, ix. p. 11 (1892); *Cory, Cat. W. Ind. B.* p. 91 (1892).
Aramides concolor, *Gray, Hand-l. B.* ii. p. 61, no. 10435 (1871).
Aramides boecki, *Gray, Hand-l. B.* ii. p. 61, no. 10438 (1871).
Erythrolimnas boecki, *Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890).
Amaurolimnas concolor, *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxviii (1893).

Adult (type of species). General colour above rufous brown, clearer and more chestnut-brown on the scapulars and wing-coverts; bastard-wing and quills dark sepia-brown, edged with lighter brown; primary-coverts deep sepia; inner secondaries chestnut-brown like the back; tail-feathers chestnut-brown; crown of head and nape dusky brown, slightly rufescent on the forehead; lores and sides of face dull rufous, browner on the ear-coverts; sides of neck and under surface of body dull vinous chestnut, paler vinous on the chin and centre of breast and abdomen; sides of body, flanks, thighs, and under tail-coverts vinous chestnut; under wing-coverts and axillaries uniform dusky brown with a slight rufous tinge; quills below dusky brown: "bill yellowish green, blackish above; feet dull purplish crimson or pink; iris vermilion" (*P. H. Gosse*). Total length 9·5 inches, culmen 1·1, wing 5, tail 2·1, tarsus 1·5, middle toe and claw 1·5.

Young. Similar to the adult, but more dusky and with less chestnut on the upper surface; below dingy vinous brown, with white shaft-streaks to the feathers of the throat and chest; centre of breast and thighs ashy isabelline.

Hab. Jamaica. Central America from Guatemala south to Guiana and Brazil.

a, *b*. Ad. sk.	Jamaica.	Gosse Coll. (Types of species.)
c. Ad. sk.	Guatemala (*J. McLeannan*).	Salvin-Godman Coll.
d. Ad. sk.	Chontales, Nicaragua (*T. Belt*).	Salvin-Godman Coll.
e. ♂ ad. sk.	Merumé Mts., British Guiana, July 12 (*H. Whitely*).	Salvin-Godman Coll.
f, *g*. Ad.; *h*. Juv. sk.	Bahia, Brazil (*Dr. Wucherer*).	Salvin-Godman Coll.
i. Sternum.	Jamaica.	Gosse Coll.

24. ANUROLIMNAS.

	Type.
Anurolimnas, *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxviii (Feb. 1893)	A. castaneiceps.

Range. Amazonia and Ecuador.

Key to the Species.

a. Larger: head like the back; forehead and sides of face chestnut like the throat and breast; abdomen and flanks uniform ..... *castaneiceps*, p. 88.

b. Smaller: head chestnut like the throat and chest; lower breast and abdomen rufescent, with black bars ..... *hauxwelli*, p. 88.

1. Anurolimnas castaneiceps.

Porzana castaneiceps, *Scl. & Salv. P. Z. S.* 1868, p. 453 (Rio Napo); *iid. Exot. Orn.* pl. lxxviii. (1869); *iid. Nomencl. Av. Neotr.* p. 140 (1873); *Salvin, Ibis*, 1874, p. 320.
Micropygia verreauxi, *Bp. C. R.* xliii. p. 559 (1856, descr. nullâ).
Aramides castaneiceps, *Gray, Hand-l. B.* iii. p. 61, no. 10436 (1871).
Ortygometra verreauxi, *Gray, t. c.* p. 63, no. 10467 (1871).

Adult. Above olive, the hinder crown like the back; wing-coverts like the back; bastard-wing, primary-coverts, and quills dusky brown, externally olive like the back; forehead and fore part of crown, eyebrow, sides of face, throat, and breast bright chestnut, a little paler on the chin; lower breast, abdomen, and sides of body olive-brown. Total length 7 inches, culmen 1, wing 4·5, tail 1·15, tarsus 2·05, middle toe and claw 1·7.

Hab. Ecuador.

a, *b*, *c*. Ad. sk.	Sarayacu, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
d. Ad. sk.	Rio Napo.	J. Gould, Esq. (Type of species.)

2. Anurolimnas hauxwelli.

Micropygia sclateri, *Bp. C. R.* xliii. p. 599 (1856; descr. nullâ).
Corethrura sp., *Scl. P. Z. S.* 1866, p. 200.
Porzana fasciata (*nec Raffl.*), *Scl. & Salv. P. Z. S.* 1867, p. 981.
Porzana hauxwelli, *Scl. & Salv. Exot. Orn.* p. 105, pl. liii. (1868); *iid. P. Z. S.* 1868, p. 453, 1873, p. 308 (Sarayacu, Pebas, Chami-

curos); *iid. Nomencl. Av. Neotr.* p. 140 (1873); *Salvin, Ibis*, 1874, p. 320; *Tacz. Orn. Pérou*, iii. p. 324 (1886).
Aramides hauxwelli, *Gray, Hand-l. B.* iii. p. 61, no. 10440 (1871).
Ortygometra sclateri, *Gray, t. c.* p. 63, no. 10466 (1871).

Adult male. General colour above rufous olive-brown, the wing-coverts like the back; quills dark brown, externally like the back; head and neck all round, throat and breast chestnut; lower breast, abdomen, sides of body, and under tail-coverts reddish buff, barred across with dusky blackish; under wing-coverts rufescent, the lower series dusky with reddish margins; quills uniform dusky brown below. Total length 6·5 inches, culmen 0·75, wing 3·65, tail 1·05, tarsus 1·55, middle toe and claw 1·55.

Hab. Upper Amazonia.

a. Ad. sk.	Chamicuros, Upper Amazons.	J. Hauxwell, Esq. [C.].
b. ♂ ad. sk.	Pebas, Upper Amazons, June 27 (*J. Hauxwell*).	Salvin-Godman Coll. (Type of species.)
c, d. ♂ ♀ ad. sk.	Yquitos, Oct.	H. Whitely [C.].
e. ♂ ad. sk.	Sarayacu.	E. Bartlett [C.].

25. ZAPORNIA.

	Type.
Zapornia, *Leach, Syst. Cat. Mamm. & B. Brit. Mus.* p. 34 (1816)	Z. parva.
Phalaridion, *Kaup, Natürl. Syst.* p. 137 (1829)*	Z. parva.
Phalaridium, *Heine & Reichen. Nomencl. Mus. Hein.* p. 319 (1890; nom. emend.)	Z. parva.

Range. The same as that of the single species of the genus.

1. Zapornia parva.

Rallus parvus, *Scop. Ann. I.* p. 108 (1769); *Gigl. Ibis*, 1865, p. 62 (Pisa).
Rallus mixtus, *Lapeyr. Mamm. et Ois. Haute-Garonne.* p. 38 (1799).
Gallinula minuta, *Mont. Orn. Dict.* ("Gallinule, Little"), cum fig. (1813).
Gallinula foljambei, *Mont. Orn. Dict.* ("Gallinule, Olivaceous").
Zapornia minuta (*nec Pall.*), *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 34 (1816); *Forst. Syn. Cat. Brit. B.* p. 27 (1817); *Bp. C. R.* xliii. p. 599 (1856); *Loche, Expl. Sci. Algér., Ois.* ii. p. 341 (1867).
Rallus peyrousii, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 562 (1819); *Roux, Orn. Provenç.* pl. 331 (1825); *Fritsch, J. f. O.* 1871, p. 381 (Bohemia).
Gallinula pusilla (*nec Pall.*), *Bechst. Orn. Taschenb.* ii. p. 340 (1883); *Temm. Man. d'Orn.* ii. p. 690 (1820); *Werner, Atlas*, Gralles, pl. 36 (1827); *Brehm, Vög. Deutschl.* p. 699 (1831); *Crespon, Orn. Gard*, p. 450 (1840); *Schleg. Rev. Crit.* p. ciii (1844); *Kjærb. Orn. Dan.* Taf. xxxviii. fig. 3, *Suppl.* pl. xviii. figs. 3, 4 (1852);

* *P. pygmæa* is also included by Kaup, who does not seem to have appreciated the different structure of the wing in the two species.

Brehm, Vogelf. p. 330 (1855); *Sundev. Sv. Fogl.* pl. 76. fig. 5 (1856); *Severtz. Turkest. Jevotn.* p. 69 (1873); *Fallon, Ois. Belg.* p. 183 (1875); *Collin, Skand. Fugle*, tab. xxxviii. fig. 3, *Suppl.* tab. ix. figs. 3, 4 (1879); *Schalow, J. f. O.* 1882, p. 297 (Brandenburg); *Koenig, J. f. O.* 1888, p. 275 (Tunis).

Crex pusilla (*nec Pall.*), *Boie, Ibis*, 1822, p. 561; *Licht. Verz. Doubl.* p. 80 (1823); *Naum. Vög. Deutschl.* ix. p. 238 (1838); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 275 (1840: Crimea); *Selys-Longch. Faun. Belge*, p. 117 (1842); *Macgilliv. Brit. B.* iv. p. 541 (1852); *Powys, Ibis*, 1860, p. 349 (Corfu); *R. Gray, B. W. Scotl.* p. 334 (1871); *Harting, Handb. Br. B.* p. 58 (1872); *Cordeaux, Ibis*, 1875, p. 186 (Heligoland); *Lilford, Ibis*, 1889, p. 336 (Cyprus); *Gätke, Vogelw. Helgoland*, p. 531 (1891).

Ortygometra olivacea, *Steph. Gen. Zool.* xii. pt. 1, p. 226 (1824).

Zapornia pusilla (*nec Pall.*), *Steph. t. c.* p. 231, cum fig. (1824); *Gould, B. Eur.* iv. pl. 345 (1837); *Reichenb. Syst. Nat.* Fulic. tab. cxix. figs. 1176–78 (1852).

Phalaridion pusilla (*nec Pall.*), *Kaup, Nat. Syst.* p. 173 (1829).

Ortygometra pusilla, *Bp. Comp. List B. Eur. & N. Amer.* p. 53 (1838); *Tacz. Bull. Soc. Zool. France*, ii. p. 160 (1877: Poland).

Porzana minuta, *Bp. Cat. Met. Ucc. Eur.* p. 65 (1842); *Gould, B. Gt. Br.* iv. pl. 90 (1864); *Schl. Mus. Pays-Bas*, Ralli, p. 31 (1865: Lower Volga, May; Sarepta); *Degl. & Gerbe, Orn. Eur.* ii. p. 257 (1867); *Fritsch, Vög. Eur.* tab. 32. figs. 4, 5 (1870); *Hume, Str. F.* i. p. 251 (1873: Sind); *Irby, B. Gibr.* p. 142 (1875); *Dresser, Ibis*, 1876, p. 413; *Murray, Vertebr. Faun. Sind*, p. 265 (1884).

The Little Crake, or Olivaceous Gallinule, *Yarrell, Hist. Br. B.* iii. p. 15 (1843).

Ortygometra minuta (*nec Pall.*), *Keys. & Blas. Wirb. Eur.* p. lxviii (1840, pt.); *Gray, List Gralle Brit. Mus.* p. 119 (1844); *id. Gen. B.* iii. p. 593 (1846); *Linderm. Vög. Griechenl.* p. 129 (1860); *Gray, List Brit. B.* p. 179 (1863); *Borggr. Vogelf. Norddeutschl.* p. 106 (1869); *Saunders, Ibis*, 1869, p. 172 (S. Spain); *Salvad. Faun. Ital., Ucc.* p. 231 (1871); *Gray, Hand-l. B.* iii. p. 63, no. 10462 (1871); *Brooke, Ibis*, 1873, p. 336 (Sardinia); *Marsch. & Pelz. Orn. Vindob.* p. 118 (1882); *Radde, Orn. Cauc.* p. 377 (1884).

Gallinula minuta (*nec Pall.*), *Brehm, Vogelf.* p. 330 (1855).

Porzana pusilla (*nec Pall.*), *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 488 (1859); *Saunders, Ibis*, 1871, p. 224 (Seville: breeding).

Rallus pusillus (*nec Pall.*), *Wright, Ibis*, 1864, p. 150 (Malta).

Porzana parva, *Doderl. Avif. Sicil.* p. 200 (1869); *Dresser, B. Eur.* vii. p. 283, pl. 498 (1878); *Hume, Str. F.* viii. p. 113 (1879); *Butler, Cat. B. Sind &c.* p. 67 (1879); *Hume & Marshall, Game B. Ind.* ii. p. 209, cum tab. (1879); *Bidd. Ibis*, 1881, p. 98 (Gilgit); *Scully, t. c.* p. 590; *C. Swinh. Ibis*, 1882, p. 123 (Kandahar); *B. O. U. List Brit. B.* p. 148 (1883); *Saunders, ed. Yarr. Br. B.* iii. p. 148 (1883); *Eagle Clarke, Ibis*, 1884, p. 147 (Slavonia); *Bogd. Consp. Av. Imp. Ross.* p. 53 (1884); *Salvad. Elench. Ucc. Ital.* p. 235 (1887); *Pleske, Mém. Acad. Pétersb.* (7) xxxvii. p. 48 (1888: Tschinas; Iskander Kul); *Guillem. Ibis*, 1888, p. 110 (Cyprus); *Meade-Waldo, Ibis*, 1889, p. 4 (Canaries); *St. John, t. c.* p. 178 (Quetta).

Crex minuta, *Elwes & Buckley, Ibis*, 1870, p. 332 (Turkey); *Danf. & Harvie Brown, Ibis*, 1875, p. 418 (Transylvania); *Seeb. Ibis*, 1882, p. 226 (Astrachan).

Phalaridium pusillum (*nec Pall.*), *Meves, J. f. O.* 1875, p. 433 (Karabolska: nesting).

Rallus minutus, *Dixon, Ibis*, 1882, p. 578 (Biskra); *Seeb. Ibis*, 1883, p. 27 (Caucasus).
Crex parva, *Seeb. Hist. Br. B.* ii. p. 457, pl. 23 (1884); *id. Ibis*, 1892, p. 26 (Heligoland, April).
Ortygometra parva, *Gigl. Avif. Ital.* p. 351 (1886); *id. op. cit.* 1st Resoc. p. 544 (1889); *Hartert, Ibis*, 1892, p. 593 (E. Prussia).
Ortygometra pusilla (*nec Pall.*), *Reichen. Syst. Verz. Vög. Deutschl.* p. 44 (1889).
Ortygometra pygmæa, *Madarász, Ausstell. Ung. Vogelf.* p. 113 (1891).

Adult male in breeding-plumage. General colour above ochreous brown, varied with black centres to the feathers and a few white spots; the scapulars and innermost secondaries ochreous brown with black centres, the latter pale ochreous along their inner web, forming a longitudinal band on each side of the back; the rest of the wing-coverts nearly uniform brown; bastard-wing, primary-coverts, and quills sepia-brown; lower back, rump, and upper tail-coverts darker and with more black than the rest of the back, the feathers being black edged with brown; tail-feathers also black edged with brown; hinder crown uniform reddish brown like the hind neck; forehead, a broad eyebrow, sides of face, and entire under surface of body light slaty grey; sides of breast ochreous brown like the sides of the neck; flanks almost entirely uniform, excepting for a few white bars, and dusky on the lower thighs and vent; under tail-coverts white, washed with ochreous and crossed with blackish bars; under wing-coverts and axillaries uniform brown like the quill-lining: "bill green, tinged with red at the base; legs and feet green; iris deep carmine" (*H. Seebohm*). Total length 7 inches, culmen 0·7, wing 4, tail 2, tarsus 1·15, middle toe and claw 1·6.

Adult female. Similar to the male on the upper surface, but a little brighter and more olive; brown colour of the head extending in a narrow line to the base of the bill; lores hoary grey; sides of face and a broad eyebrow grey; a faint tinge of brown on the ear-coverts; cheeks and throat white; remainder of under surface, from the fore neck downwards, pale vinaceous isabelline; thighs clear ashy, as also the lower flanks, which have dusky bars and white edges to the feathers; vent and under tail-coverts barred with black and white, the latter tinged with ochreous buff. Total length 7 inches, culmen 0·65, wing 4·05, tail 2·2, tarsus 1·2, middle toe and claw 1·65.

Young. Similar in general to the adult female, but having the scapulars mottled externally with white bars; under surface of body entirely white, as also the sides of the face and eyebrow; the breast more or less varied with the remains of dusky edgings to the feathers; the thighs distinctly banded with brown and white; the greater coverts, primary-coverts, and quills with more or less distinct white spots at the tips.

Hab. Central and Southern Europe; accidental in the Faeroes, Great Britain, and also Southern Sweden; East to Central Asia, wintering in N.W. India and N.E. Africa.

a. Juv. sk.	Ashburton, Devonshire.	Montagu Coll.
b. ♂ ad. sk.	Europe.	Gould Coll.
c, *d*. Ad. sk.	France.	Riocour Coll. (? Type of *Rallus peyrousii*.)
e. ♀ imm. sk.	Galicia, May.	Gould Coll.
f. ♂ juv. sk.	Bosphorus, Aug. (*T. Robson*).	Tweeddale Coll.
g. Ad. sk.	Erzeroum.	Gould Coll.
h. Juv. sk.	Marshes of Babylonia (*Commander Jones*).	India Museum.
i, *k*. ♀ ad. sk.	Candahar, Feb.	Col. Swinhoe [P.].
l. ♂ ad. sk.	Candahar, March 10 (*Sir O. St. John*).	Hume Coll.
m. ♂ ad. sk.	Bolan River, Bolan Pass (*Griffith*).	India Museum.
n–*q*. ♂ ad.; *r*–*v*. ♀ ad. et imm. sk.	Larkhana, Sind, Jan. (*A. O. H.*).	Hume Coll.
w. Ad. sk.	Uganda, Equatorial Africa (*Piaggia*).	Sharpe Coll.

26. PORZANA *.

	Type.
Porzana, *Vieillot, Analyse*, p. 61	P. porzana.
Mustelirallus, *Bp. C. R.* xliii. p. 599 (1856)	P. albicollis.
Galeolimnas, *Heine in Heine & Reichen. Nomencl. Hein.* p. 320 (1890)	P. carolina.

Range. Nearly cosmopolitan.

Key to the Species.

a. Axillaries barred with white; back streaked with black and spotted or lined with white.
  a'. Vent white or tawny buff, the grey not extending beyond the upper breast.
    a''. Centre of throat ashy; the inner web of the innermost secondaries light fulvous brown ..... *porzana*, p. 93.
    b''. Centre of throat black, as also the fore part of the cheeks and lores; inner web of secondaries like the rest of the quills and fringed with white ..... *carolina*, p. 97.
  b'. Vent black; the grey of the breast extending to the abdomen ..... *fluminea*, p. 101.

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* I have not been able to identify the following species :—

PORZANA MARGINALIS.

Porzana marginalis, *Bp. C. R.* xliii. p. 599 (1856, descr. nullâ); *Hartl. Orn. W.-Afr.* p. 241 (1857 : Gaboon); *Tacz. J. f. O.* 1870, p. 54 (Biskra, Algeria); *Heugl. t. c.* p. 385; *Tacz. t. c.* p. 371; *Oust. Nouv. Arch. Mus.* (2) ii. *Bull.* p. 143 (1879 : Gaboon).

Ortygometra marginalis, *Gurney in Anderss. B. Dam.-Ld.* p. 318 (1872 : Ondonga).

Crex marginalis, *Sharpe, ed. Layard's B. S. Afr.* p. 613 (1884).

Hab. Algeria and West Africa from Gaboon to Damara Land.

b. Axillaries uniform, not barred with white (occasionally a few white spots).
c'. With the back mottled, not uniform.
c''. With no white frecklings or bars on the upper surface, which is olive-brown mottled with black centres to the feathers; under surface of body ashy grey; throat white ..... *albicollis*, p. 102.
d''. With white frecklings or bars on the upper surface.
a'''. Wing-coverts spotted with white or uniform.
*a*⁴. Ear-coverts blue-grey, or ashy, with no brown streak along their upper portion ..... *intermedia*, p. 103.
*b*⁴. Similar to *P. intermedia*, but with lighter colour and a longer bill .... *affinis*, p. 106.
*c*⁴. Ear-coverts grey, with more or less of a brown streak along their upper margin.
*a*⁵. Larger: olive-brown above, ashy grey below; sides of body barred. *pusilla*, p. 106.
*b*⁵. Smaller: more tawny above: pearly grey below; lower throat and abdomen white; flanks barred ..... *palustris*, p. 109.
b'''. Wing-coverts with white bars.
*d*⁴. No white streaks on the back, which is olive-brown with blackish centres to the feathers; throat and breast uniform slaty grey ..... *spiloptera*, p. 109.
*e*⁴. Back broadly streaked with white; under surface of body white, tinged with tawny buff on the chest..... *flaviventris*, p. 110.
d'. With the back uniform.
e''. Of smaller size: under tail-coverts barred with white: back rufous-chocolate; bill entirely black.
c'''. Larger; wing 3·6 inches: wing-coverts conspicuously edged with white..... *tabuensis*, p. 111.
d'''. Smaller; wing 2·7 inches: white edgings to the wing-coverts obsolete.. *galapagensis*, p. 113.
f''. Larger: under tail-coverts uniform black; back reddish brown; bill for the most part yellow ..... *bicolor*, p. 113.

1. Porzana porzana.

Le petit Rasle d'eau, ou La Marouette, *Briss. Orn.* v. p. 155, pl. xiii. fig. 1 (1760).

Rallus porzana, *Linn. Syst. Nat.* i. p. 262 (1766); *Gm. Syst. Nat.* i. p. 712 (1788); *Pall. Zoogr. Rosso-Asiat.* ii. p. 154 (1811: S. Russia, Crimea, Siberia); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 557 (1819); *Roux, Orn. Prov.* pl. 330 (1825); *Wright, Ibis*, 1864, p. 150 (Malta); *Seeb. Ibis*, 1883, p. 27 (Caucasus).

Rallus fulicula, *Scop. Ann. I.* p. 108 (1769).
La Marouette, *Daubent. Pl. Enl.* ix. pl. 751; *Buff. Hist. Nat. Ois.* viii. p. 157 (1781).
Spotted Gallinule, *Lath. Gen. Syn.* iii. pt. 1, p. 264 (1785).
Gallinula porzana, *Lath. Ind. Orn.* ii. p. 772 (1790); *Forst. Syn. Cat. Br. B.* p. 27 (1817); *Temm. Man. d'Orn.* ii. p. 688 (1820); *Werner, Atlas*, Gralles, pl. 35 (1827); *Crespon, Orn. Gard*, p. 449 (1840); *Schl. Rev. Crit.* p. ciii (1844); *Kjærb. Orn. Dan.* pl. xxxviii. fig. 4 (1852); *Sundev. Sv. Fogl.* pl. 45. fig. 3 (1856); *Filippi, Viagg. Pers.* p. 352 (1865); *Severtz. Turkest. Jevotn.* p. 69 (1873); *Fallon, Ois. Belg.* p. 183 (1875); *Collin, Skand. Fugle*, pl. xxxviii. fig. 4 (1879); *Koenig, J. f. O.* 1890, p. 313 (Madeira); *Reiser, Vög. Mus. Sarajevo*, p. 117 (1891).
Ortygometra maruetta, *Leach, Syst. Cat. Mamm. & B. Brit. Mus.* p. 34 (1816); *Rüpp. Syst. Uebers.* p. 128 (1845).
Crex porzana, *Licht. Verz. Doubl.* p. 80; *Naum. Vög. Deutschl.* ix. Taf. 237 (1838); *Macgill. Brit. B.* iv. p. 535 (1852); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 274 (1840); *Selys-Longch. Faun. Belge*, p. 117 (1842); *Hewits. Eggs Br. B.* ii. p. 318, pl. lxxxix. figs. 2, 3 (1846); *Thomps. B. Irel.* ii. p. 318 (1849); *Powys, Ibis*, 1860, p. 349 (Epirus); *Schl. Dier. Nederl., Vog.* pl. 26. fig. 3 (1861); *Elwes & Buckley, Ibis*, 1870, p. 332 (Turkey); *R. Gray, B. W. Scotl.* p. 333 (1871); *Harting, Handb. Brit. B.* p. 58 (1872); *Cordeaux, Ibis*, 1875, p. 186 (Heligoland); *Danf. & Harvie Brown, t. c.* p. 418 (Transylvania); *Seebohm, Hist. Br. B.* ii. p. 540, pl. 23 (1884); *Murray, Vertebr. Faun. Sind*, p. 264 (1884); *Lilford, Ibis*, 1888, p. 336 (Cyprus); *Gätke, Vogelw. Helgoland*, p. 531 (1891); *Seeb. Ibis*, 1892, p. 25 (Heligoland).
Ortygometra porzana, *Steph. in Shaw's Gen. Zool.* xii. pt. 1, p. 223 (1824); *Keys. u. Blas. Wirb. Eur.* p. lxvii (1840); *Gray, List Gralle Brit. Mus.* p. 118 (1844); *id. Gen. B.* iii. p. 593 (1846); *Heugl. Syst. Uebers.* p. 64 (1856); *Linderm. Vög. Griechenl.* p. 128 (1860); *Reinh. Ibis*, 1861, p. 12 (Greenland); *Gray, List Br. B.* p. 179 (1863); *Giglioli, Ibis*, 1865, p. 62 (Pisa); *Moore, t. c.* p. 439; *Baird, Ibis*, 1867, p. 282; *Borggr. Vogelf. Norddeutschl.* p. 106 (1869); *Salvad. Faun. Ital., Ucc.* p. 230 (1871); *Gray, Hand-l. B.* iii. p. 62, no. 10451 (1871); *Heugl. Orn. N.O.-Afr.* ii. pt. i. p. 1241 (1873: Egypt to Blue and White Nile); *Alston & Harvie Brown, Ibis*, 1873, p. 67 (Archangel); *Brooke, t. c.* p. 336 (Sardinia); *Wharton, Ibis*, 1875, p. 27 (Corsica); *Tacz. Bull. Soc. Zool. France*, ii. p. 160 (1877: Poland); *Cab. J. f. O.* 1878, p. 246 (Kitui in Ukamba); *Marsch. & Pelz. Orn. Vindob.* p. 118 (1882); *Radde, Orn. Cauc.* p. 376 (1884); *Fischer, J. f. O.* 1885, p. 117 (Zanzibar); *Gigl. Avif. Ital.* p. 349 (1886); *id. op. cit.* 1st Resoc. p. 540 (1889); *Madarász, Ausst. Ungar. Vogelf.* p. 112 (1891); *Hartert, Ibis*, 1892, p. 513 (E. Prussia).
Gallinula maculata, *Brehm, Vög. Deutschl.* p. 698 (1831).
Gallinula punctata, *Brehm, Vög. Deutschl.* p. 699 (1831).
Zapornia porzana, *Gould, B. Eur.* iv. pl. 343 (1837).
Porzana maruetta, *Bp. Cat. Metod. Ucc. Eur.* p. 64 (1842); *Blyth, Cat. B. Mus. As. Soc.* p. 284 (1849: Calcutta); *Reichenb. Handb.* Fulic. Taf. cxvii. figs. 1159, 1160 (1851); *Bp. C. R.* xliii. p. 599 (1856); *Jaub. et Barth.-Lapomm. Rich. Orn.* p. 487 (1859); *Irby, Ibis*, 1861, p. 346 (Oudh); *Gould, B. Gt. Br.* iv. pl. 88 (1864); *Jerd. B. Ind.* iii. p. 722 (1864); *Schl. Mus. Pays-Bas*, Ralli, p. 29 (1865); *Drake, Ibis*, 1867, p. 428 (Morocco); *Degl. & Gerbe, Orn. Eur.* ii. p. 256 (1867); *Loche, Expl. Sci. Algér., Ois.* ii.

p. 338 (1867); *Doderl. Avif. Sicil.* p. 200 (1869); *Bettoni, Ucc. nidif. Lomb.* tav. 84 (1870); *Fritsch, Vög. Eur.* tab. 32. fig. 1; *id. J. f. O.* 1871, p. 381 (Bohemia); *Saunders, Ibis*, 1871, p. 224 (S. Spain); *Gurney, t. c.* p. 299 (Laghouat); *Shelley, B. Egypt*, p. 274 (1872); *Hume & Henders. Lahore to Yark.* p. 293 (1873); *Hume, Str. F.* i. p. 251 (1873: Roree); *Irby, B. Gibr.* p. 143 (1875); *Dresser, Ibis*, 1876, p. 413; *Blanf. East. Persia*, ii. p. 288 (1876: Shiraz); *Scully, Str. F.* iv. p. 193 (1876: E. Turkestan); *Fairb. t. c.* p. 263 (Ahmednuggar); *Butler, Str. F.* v. p. 215 (1877: Deesa); *id. t. c.* p. 233 (Guzerat); *Dresser, B. Eur.* vii. p. 267, pl. 496 (1878); *Davids. & Wenden, Str. F.* vii. p. 90 (1878: Deccan); *Butler, t. c.* p. 187 (Sind); *Hume, t. c.* p. 487 (Calcutta); *Butler, Cat. B. Sind etc.* p. 66 (1879); *Hume, Str. F.* viii. p. 113 (1879); *id. & Marsh. Game Birds Ind.* ii. p. 213, pl. 37 (1879); *Ridgw. Proc. U.S. Nat. Mus.* iii. pp. 20, 222 (1880); *Butler, Cat. B. S. Bomb. Pres.* p. 80 (1880: Belgaum); *G. Reid, Str. F.* x. p. 73 (1881: Lucknow); *Biddulph, Ibis*, 1881, p. 98 (Gilgit); *Scully, t. c.* p. 590; *Davidson, Str. F.* x. p. 322 (1889: W. Khandeish); *Coues, Check-l. N. Amer. B.* p. 109 (1882); *Shelley, Ibis*, 1882, p. 366 (Selenia Pan); *Saunders, ed. Yarr. Brit. B.* iii. p. 143 (1884); *B. O. U. List Br. B.* p. 147 (1883); *Ziemer, J. f. O.* 1884, p. 184; *Chapm. Ibis*, 1884, p. 92 (Andalucia); *Saunders, t. c.* p. 388 (Pyrenees); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 368 (1884); *Tristr. Faun. & Flor. Palest.* p. 125 (1884); *Boyd. Consp. Av. Imp. Ross.* p. 52 (1884); *Büchner, J. f. O.* 1885, p. 207 (S. Petersburg); *Booth, Rough Notes*, vol. ii. (1887); *Olphe-Gall. Contr. Faun. Orn. Eur. Occid.* fasc. xvi. p. 17 (1887); *Chapm. Ibis*, 1884, p. 92 (Andalucia); *Whiteh. Ibis*, 1885, p. 44 (Corsica); *Savile Reid, Ibis*, 1887, p. 252 (Marocco); *Tait, t. c.* p. 382 (Portugal); *Scully, J. A. S. Beng.* lvi. p. 58 (1887); *Pleske, Mém. Acad. Pétersb.* (7) xxxvi. p. 48 (1888: Tschinas); *Meade-Waldo, Ibis*, 1890, p. 430 (Canaries); *Dresser, Ibis*, 1891, p. 369 (Erzeroum); *Sharpe, Sci. Res. 2nd Yark. Miss., Aves*, p. 147 (1891).

Spotted Crake, *Yarr. Brit. B.* iii. p. 11 (1843).

Gallinula leucothorax, *Brehm, Vogelf.* p. 329 (1856).

Gallinula gracilis, *Brehm, Vogelf.* p. 329 (1856).

Porzana porzana, *Sharpe, ed. Layard's B. S. Afr.* p. 613 (1884); *id. Ibis*, 1886, p. 489 (Fao); *A. O. U. Check-l. N. Amer. B.* p. 141 (1886); *Ridgw. Man. N. Amer. B.* p. 139 (1887); *Chamberl. Auk*, vi. p. 217 (1889: Frederickshaab).

Porzana fulicula, *Salvad. Elench. Ucc. Ital.* p. 234 (1887).

Adult male in winter plumage. General colour above olive-brown, mottled with white and black markings, the white being distributed in the form of lateral spots on the dorsal feathers, and on the scapulars and wing-coverts in the form of arrowhead spots or bars, which are margined with black; all the feathers of the upper surface with more or less concealed black centres; wing-coverts rather lighter brown than the back, the white spots somewhat less plentifully distributed, excepting on the greater series and innermost secondaries, where the white bars with their accompanying black lines are very distinct and somewhat zigzag in character on the latter; bastard-wing, primary-coverts, and quills sepia-brown, externally whitish brown, with a white edging to the first

primary and outer feathers of the bastard-wing; the innermost secondaries paler and more sandy brown along their inner webs; lower back black, with a few small white markings; rump and upper tail-coverts olive-brown centred with black, the lateral feathers rather conspicuously barred and edged with white; tail-feathers dark brown, externally lighter brown; crown of head olive-brown, the feathers spotted with black like the back; forehead and eyebrow slaty grey, the latter profusely dotted with white; a narrow line at the base of the forehead and a loral spot black, extending below the eye and on to the fore part of the cheeks; above the lores a faintly indicated spot of white; cheeks and throat slaty grey, dotted with white: ear-coverts uniform brown, extending on to the sides of the neck; neck, fore neck, breast, and sides of the body everywhere spotted with white, which takes the form of cross bars on the sides of the body, each white bar skirted by a narrow blackish bar above and below; the chest and upper breast shaded with ashy; lower breast and abdomen white, shading off into sandy buff on the vent and under tail-coverts; lesser under wing-coverts and edge of wing conspicuously white; remainder of under wing-coverts and axillaries dusky brown barred with white, resembling the flanks; quills dusky below: "bill yellow, orange-red at base, dusky on the culmen and at the tip; legs and feet green; iris brown" (*E. A. Butler*). Total length 9 inches, culmen 0·85, wing 4·85, tail 1·7, tarsus 1·3, middle toe and claw 1·7.

The female differs from the male in having the sides of the face more mottled, the breast and throat apparently never so uniform grey as in the male.

Adult in summer plumage. Very similar to the winter plumage, but not so distinctly varied with white above; the white dots also absent for the most part on the eyebrow, sides of neck, throat, and breast, which are almost uniformly grey, the latter slightly washed with brown.

Young. Easily distinguished from the adults by its white throat and more profusely spotted appearance. The streaks on the back are also very distinct as a rule. The adult plumage appears to me to be gained without a moult, the grey colour being gradually assumed as the spring advances; but I have not had a sufficient series to determine accurately the various phases through which the species passes. The young bird has the brown of the head continued to the base of the forehead.

Hab. Europe generally up to about 65° W. lat.; as far east as Yarkand; wintering in the Indian Peninsula and in Africa. Accidental in Greenland.

a. Jr. sk.	England.	Hume Coll.
b. Ad.; *c*, *d*, *e.* Pull. sk.	England.	Gould Coll.
f. Ad. sk.	Cambridgeshire.	Purchased.
g, *h*, *i.* Pull. st.	Cambridgeshire.	Purchased.
k. ♂ jr. st.	Near Cambridge, Oct.	Harting Coll.
l, *m*, *n.* Ad. sk.	Waterbeach, Nov.	Salvin-Godman Coll.

o. Jr. st.	Norfolk.	Theodore Fisher, Esq. [P.].
p. ♂ jr. sk.	Norfolk, Sept. 3.	Seebohm Coll.
q. Jr. sk.	Yarmouth.	J. H. Gurney, Esq. [P.].
r, *s*. ♂ ♀ ad. st.	Devonshire.	Montagu Coll.
t, *u*. Imm. st.	Newport, Mon.	Rev. Chancellor Morgan [P.].
v, *w*. [♂ ♀] ad. sk.	Valkenswaard. Holland (*J. Baker*).	Salvin-Godman Coll.
x, *y*. Ad. et pull. sk.	Valkenswaard, Holland (*J. Baker*).	Gould Coll.
z. Ad. sk.	Arcachon, S. France, Dec. (*E. V. Seebohm*).	Seebohm Coll.
a'. Ad. sk.	Corsica, March 27.	J. Whitehead, Esq. [P.].
b'. ♀ ad. sk.	Hungary, April 7.	Hungarian National Museum [P.].
c'. ♂ ad. sk.	Asia Minor, May 8 (*T. Robson*).	Tweeddale Coll.
d', *e'*. ♂ jr. sk.	Smyrna, Dec. (*C. G. Danford*).	Seebohm Coll.
f', *g'*. ♂ ad. sk.	Egypt. Feb. 24 (*G. E. S.*).	Shelley Coll.
h'. Ad.; *i'*, *k'*. Imm. sk.	Fao, Persian Gulf.	W. D. Cumming, Esq. [P.].
l'. Jr. sk.	Karatag Lake, Sept. 24 (*Dr. G. Henderson*).	Hume Coll.
m'. Ad. sk.	Kotegurh.	Hume Coll.
n'. Ad. sk.	Sindh (*Dr. Gould*).	India Museum.
o'. ♀ ad. sk.	Roree, Sindh, Nov. (*A. O. H.*).	Hume Coll.
p'. ♀ ad. sk.	Panch Mehals, Sept.	Hume Coll.
q'. ♂ ad. sk.	Delhi, May (*W. N. Chill*).	Hume Coll.
r', *s'*. ♂ ad. sk.	Gurgaon district, April, May (*W. N. Chill*).	Hume Coll.
t'. Ad. sk.	Rajputana.	Colonel Biddulph [P.].
u'. ♂ ad. sk.	Bundelkund, Jan. 16 (*G. F. L. Marshall*).	Hume Coll.
v', *w'*. ♀ ad. sk.	North Guzerat (*H. E. M. James*).	Hume Coll.
x'. ♂ ad. sk.	Lucknow, Nov. 23 (*G. Reid*).	Hume Coll.
y'–*f''*. Ad. et juv. sk.	Calcutta, Dec.–Feb.	Hume Coll.
g''. Ad. sk.	North Deccan (*Burgess*).	Gould Coll.
h''. ♂ ad. sk.	Belgaum, Nov. 7(*E. A. Butler*).	Hume Coll.
i''. Sternum.	England.	J. Ingall, Esq. [P.].
k''. Sternum.	England.	J. Ray, Esq.
l'', *m''*. Sterna.		Purchased.

2. Porzana carolina.

The Little American Water-hen, *Edwards*, *Nat. Hist. B.* iii. pl. 144 (1750).

La Poule Soultane de la Baye de Hudson, *Briss. Orn.* v. p. 541 (1760).

Rallus carolinus, *Linn. Syst. Nat.* i. p. 363 (1766); *Gm. Syst. Nat.* i. p. 713 (1788); *Audub. B. Amer.* pl. ccxxxii.; *Swains. & Rich. Faun. Bor.-Amer., Aves*, p. 403 (1831; Saskatchewan plains); *Audub. Orn. Biogr.* iii. p. 251 (1835), v. p. 572 (1839); *D'Orb.*

in Ramon de la Sagra, Hist. Nat. Cuba, Ois. p. 262 (1840); *Bryant, Proc. Bost. Soc. Nat. Hist.* x. p. 257 (1866; Porto Rico); *Sundev. Œfv. K. Vet.-Akad. Förh. Stockh.* 1869, p. 587 (S. Bartholomew), p. 641 (Porto Rico).

Soree, *Penn. Arctic Zool.* ii. p. 491 (1785).

Soree Gallinule, *Lath. Gen. Syn.* iii. pt. 1, p. 262 (1785).

Rallus stolidus, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 567 (1819).

Ortygometra carolina, *Bp. Comp. List B. Eur. & N. Amer.* p. 53 (1838); *Audub. B. Amer.* 8vo, v. p. 145, pl. cccvi. (1842); *Gray, List Gralle Brit. Mus.* p. 118 (1844); *id. Gen. B.* iii. p. 593 (1846); *Gosse, B. Jamaica*, p. 371 (1847); *Woodh. in Sitgr. Rep. Zuni and Colorado*, p. 101 (1854); *Reinh. Ibis*, 1861, p. 12; *Léct. Ois. Trinid.* p. 493 (1866); *Dresser, Ibis*, 1866, p. 40 (San Antonio); *Baird, Ibis*, 1867, pp. 283, 285.

Carolina Crake Gallinule, *Giraud, B. Long Isl.* p. 201 (1844).

Porzana carolina, *Cass. in Baird, Cass. & Lawr. B. N. Amer.* p. 749 (1858); *Scl. & Salv. Ibis*, 1859, p. 230 (Lake of Dueñas); *A. & E. Newton, t. c.* p. 260 (S. Croix); *Blakist. Ibis*, 1863, p. 134 (Red River); *March, Proc. Acad. Philad.* 1864, p. 69 (Jamaica); *Scl. P. Z. S.* 1864, p. 179 (City of Mexico); *Schl. Mus. Pays-Bas*, Ralli, p. 28 (1865); *Eyre, Zool.* 1865, p. 9540; *A. Newt. P. Z. S.* 1865, p. 196; *Scl. & Salv. P. Z. S.* 1869, p. 252 (Lake of Valencia); *Salv. P. Z. S.* 1870, p. 219 (Chiriqui); *Allen, Bull. Mus. C. Z.* iii. p. 183 (1872); *Coues, Key N. Amer. B.* p. 273 (1872); *Scl. & Salv. Nomencl. Av. Neotr.* p. 139 (1873); *Coues, B. N.-West*, p. 538 (1874); *Lawr. Mem. Bost. Soc. Nat. Hist.* ii. p. 312 (1874: Mazatlan); *Hensh. Rep. Zool. Exped. 100th Mer.* p. 468 (1875); *Gundl. Orn. Cuba*, p. 299 (1876); *Taez. P. Z. S.* 1877, p. 748 (W. Ecuador); *Gundl. J. f. O.* 1878, p. 162 (Porto Rico); *Coues, Bull. U.S. Geol. Surv.* iv. p. 647 (1878); *Merrill, Proc. U.S. Nat. Mus.* i. p. 165 (S. Texas: breeding); *Belding, t. c.* p. 433 (Stockton); *Scl. & Salv. P. Z. S.* 1879, p. 545 (Medellin); *Maynard, B. East. N. Amer.* p. 430 (1879); *Cory, B. Bahamas*, p. 167 (1880; winter); *Ridgw. Proc. U.S. Nat. Mus.* iii. p. 292 (1880); *A. & E. Newt. Handb. Jamaica*, p. 114 (1881); *Coues, Check-l. N. Amer. B.* p. 109 (1882); *Belding, Proc. U.S. Nat. Mus.* v. p. 547 (1882), vi. p. 351 (1883: La Paz); *B. O. U. List Br. B.* p. 147 (1883); *Stearns, New Engl. Bird-Life*, ii. p. 286 (1883); *Keels, Canad. Sportsm.* iii. p. 283 (1883; nesting); *Berl. & Taez. P. Z. S.* 1884, p. 313 (W. Ecuador); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 370 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 673 (1884); *Talbot, Auk*, i. p. 99 (1884: Dakota); *Turner, Proc. U.S. Nat. Mus.* viii. p. 248 (1885: Labrador); *Drew, Auk*, ii. p. 18 (1885: Colorado); *Merriam, t. c.* p. 62; *Loomis, t. c.* p. 190 (S. Carolina); *Agersb. t. c.* p. 287 (S.E. Dakota); *Brewster, Auk*, iii. p. 179 (1886: N. Carolina); *Scott, t. c.* p. 386 (Arizona); *Tacz. Orn. Pérou*, iii. p. 320 (1886: Tumbez); *Wells, List B. Grenada*, p. 9 (1886); *Ferrari-Perez, Proc. U.S. Nat. Mus.* ix. p. 177 (1886: Puebla); *A. O. U. Check-l. N. Amer. B.* p. 142 (1886); *Ridgw. Man. N. Amer. B.* p. 139 (1887); *W. E. Bryant, Forest and Stream*, xxvi. p. 425 (1887: California); *Towns. Proc. U.S. Nat. Mus.* x. pp. 163, 197, 234 (1887: N. California); *Ridgw. t. c.* p. 578 (Swan Island); *Beckh. t. c.* pp. 637, 650 (Texas); *Cooper, Auk*, iv. p. 90 (1887: Ventura Co.); *Richm. Auk*, v. p. 20 (1888: W. Colombia; breeding); *Chapm. t. c.* pp. 38, 39, 269 (Florida); *Merrill, t. c.* p. 144 (Ft. Klamath; breeding); *Kumlien, t. c.* p. 328 (1888);

Shufeldt, Journ. Comp. Morph. 1888, art. xvii. pp. 1–16; *Cory, B. W. Ind.* p. 256 (1889); *Scott, Auk*, vi. p. 155 (1889: Florida); *Salvin, Ibis*, 1889, p. 378 (Cozumel); *Mearns, Auk*, vii. p. 51 (1890: Arizona); *Thomps. Proc. U.S. Nat. Mus.* xiii. p. 494 (1891: Manitoba); *Scott, Auk*, ix. p. 11 (1892; Jamaica); *id. t. c.* p. 212 (Florida, winter); *Attw. Auk*, ix. p. 232 (San Antonio); *Cherrie, t. c.* p. 239 (San José, Costa Rica).

Aramides carolina, *Gray, Hand-l. B.* iii. p. 60, no. 10431 (1871).

Crex carolina, *Harting, Handb. Brit. B.* p. 152 (1872); *Seeb. Hist. Brit. B.* ii. p. 541 (1884).

Galeolimnas carolina, *Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890).

Adult male. General colour above olivaceous brown, varied with black centres and white margins to the feathers; the lower back and rump darker, the black centres to the feathers being more pronounced; wing-coverts for the most part uniform olivaceous brown, with white spots and freckles on the greater series; bastard-wing, primary-coverts, and quills dusky brown, externally olivaceous brown, the bastard-wing feathers and outer primary edged with white; the innermost secondaries centred with black and edged with white like the back; tail-feathers olivaceous brown, with blackish centres; crown of head and neck more rufous brown than the back and more uniform; forehead and centre of crown black, as well as the lores, fore part of cheeks, and centre of throat and fore neck; a narrow eyebrow, sides of face, sides of neck, and chest ashy grey; breast white, the lower flanks barred with black; the sides of the body brown, barred with white, each white bar with a narrow border-line of black; thighs brown, under tail-coverts white, the vent tinged with fulvous; under wing-coverts brown, edged with white, the edge of the wing white; axillaries brown, distinctly barred with white: "bill yellow at base, dusky towards the end; feet yellowish green; claws light brown; iris bright chestnut" (*J. J. Audubon*). Total length 8 inches, culmen 0·9, wing 4·3, tail 1·9, tarsus 1·45, middle toe and claw 1·75.

Adult female. Similar to the male in colour. Total length 8 inches, culmen 0·75, wing 4·25, tail 2·85, tarsus 1·1, middle toe and claw 1·65.

Young. Upper surface resembling that of the adult, but the under surface for the most part white; the lower throat and fore neck sandy buff; the under tail-coverts light tawny buff; sides of the breast brown, and the flanks black, both barred across with white; lores and sides of face ashy brown; a supraloral streak, eyebrow, and cheeks sandy buff.

The adult plumage is gained in the first winter, but the grey feathers of the neck still retain brownish margins.

Hab. Temperate North America generally, wintering in Central America, the West India Islands, and Northern South America.

a. Juv. sk.	Avigait, Greenland, Sept. 30 (*H. C. Müller*).	Hargitt Coll.
b. Imm. sk.	Hudson's Bay.	Sir G. Back [P.].

c. Ad. sk.	49th Parallel, May (*G. M. Dawson*).	N. A. Bound. Comm.
d. ♀ ad. sk.	Canada (*Col. Shelley*).	Shelley Coll.
e. Imm. sk.	New Brunswick, Sept. 24.	Capt. Savile Reid [P.].
f. ♂ juv. sk.	Lyons Falls, New York, Oct. 7 (*A. I. Dayan*: *Hensh. Coll.*).	Salvin-Godman Coll.
g. Ad. sk.	Rockford, Illinois (*Blackman*).	Salvin-Godman Coll.
h. Ad. sk.	Riverdale, Illinois, May 3 (*E. W. Nelson*: *Hensh. Coll.*).	Salvin-Godman Coll.
i. Ad. sk.	Fremont, Illinois (*W. J. Shaw*).	Salvin-Godman Coll.
k. Ad. st.	Cleveland, Ohio.	Prof. Kirtland [P.].
l, *m*, *n*. ♂ ad. et juv.; *o*, *p*. ♂ juv. sk.	Pawtuxent R., Indiana, Sept. (*Hensh. Coll.*).	Salvin-Godman Coll.
q. Pull. sk.	Davis Station, Indiana.	Howard Saunders, Esq. [P.].
r, *s*. ♂ ♀ ad. sk.	Lake Borgue, Louisiana, March (*Hensh. Coll.*).	Salvin-Godman Coll.
t. ♀ juv. sk.	Provo R., Utah, July (*Hensh. Coll.*).	Salvin-Godman Coll.
u. ♂ ad. sk.	Riverside, California, Feb. 17.	Wilson Crewdson, Esq. [P.].
v. ♂ ad. sk.	San Luis, Obispo, California, Oct. 28 (*Hensh. Coll.*).	Salvin-Godman Coll.
w–*a'*. ♂ ad. et imm.; *b'*, *c'*. ♀ imm. sk.	Corpus Christi, Texas, Sept., Oct. (*F. B. Armstrong*).	Salvin-Godman Coll.
d', *e'*, *f'*. ♂ ad. sk.	Brownsville, Texas, March, April (*F. B. A.*).	Salvin-Godman Coll.
g', *h'*. ♂ ad.; *i'*. imm. sk.	Tarpon Springs, Florida, Oct. Dec., April (*W. E. D. Scott*).	Salvin-Godman Coll.
k', *l'*. ♂ ad.; *m'*, *n'*. ♀ imm. sk.	Bermuda, April, Oct.	Capt. Savile Reid [C.].
o'. ♀ ad. sk.	Chapulco, Puebla, Mexico, Aug. 20 (*Ferrari-Perez*).	Salvin-Godman Coll.
p'. Ad. sk.	Progreso, Northern Yucatan, Feb. (*E. C. J. Devis*).	Salvin-Godman Coll.
q', *r'*. Ad. et imm. sk.	Cozumel Island (*G. F. Gaumer*).	Salvin-Godman Coll.
s'. Ad. sk.	Belize, British Honduras (*F. Blancaneaux*).	Salvin-Godman Coll.
t', *u'*. Ad. sk.	Guatemala.	Salvin-Godman Coll.
v', *w'*, *x'*. Ad. et imm. sk.	Dueñas, Guatemala, Oct., Feb. (*O. S.*).	Salvin-Godman Coll.
y'. Ad. sk.	Coban, Vera Paz, Nov. (*O. S.*).	Salvin-Godman Coll.
z'. ♂ ad. sk.	Chiriqui, Panama (*E. Arcé*).	Salvin-Godman Coll.
a'', *b''*. Ad. et imm. sk.	Lion Hill, Panama (*J. McLeannan*).	Salvin-Godman Coll.
c''. ♀ imm. sk.	Medellin, Antioquia, U.S. Colombia (*T. K. Salmon*).	Salvin-Godman Coll.
d''. Ad. sk.	Quito, Ecuador.	Salvin-Godman Coll.
e''. Ad. sk.	San Lucas, Ecuador (*Villagomez*).	Salvin-Godman Coll.
f'. Ad sk.	Sarayacu, Ecuador (*C. Buckley*).	Salvin-Godman Coll.

g''. Ad. sk.	Trinidad.	Old Collection.
h'', *i''*, *k''*. Ad. et imm. sk.	Union Island, West Indies, Oct., April (*D. W. Smith*).	Salvin-Godman Coll.
l''–p''. Ad. et imm. sk.	St. Vincent, Oct., Jan. (*D. W. Smith*).	Salvin-Godman Coll.
q''. ♂ ad. sk.	Metcalfe Parish, Jamaica, Dec. (*W. Osburn*).	Salvin-Godman Coll.
r''. Sternum.	Jamaica.	Gosse Coll.

3. Porzana fluminea.

Rallus novæ hollandiæ, *Cuv. MSS. in Mus. Paris*; *Less. Traité*, p. 537 (1831; descr. nullâ); *Pucher. Rev. et Mag. de Zool.* 1851, p. 278.

Porzana fluminea, *Gould, P. Z. S.* 1842, p. 139; *id. B. Austr.* vi. pl. 79 (1848); *id. Handb. B. Austr.* ii. p. 339 (1865); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 193 (1876), ii. p. 199 (1877); *id. P. Z. S.* 1877, p. 345 (Queensland); *North, Proc. Linn. Soc. N. S. W.* (2) ii. p. 1779 (1888: Cumberland district); *Ramsay, Tab. List Austr. B.* p. 23 (1888).

Ortygometra fluminea, *Gray, List Gallæ Brit. Mus.* p. 118 (1844); *id. Gen. B.* iii. p. 593 (1846).

Porzana novæ-hollandiæ, *Bp. C. R.* xliii. p. 599 (1850).

Ortygometra novæ-hollandiæ, *Gray, Hand-l. B.* iii. p. 62, no. 10452 (1871); *Heine & Reichen. Nomencl. Mus. Hein.* p. 319 (1890).

Adult. General colour above olivaceous brown, dotted all over with white spots and tiny streaks, the feathers centred with black; wing-coverts like the back, but more uniform, less plentifully spotted with white: bastard-wing, primary-coverts, and quills olivaceous brown, with white margins to the bastard-wing feathers and the first primary; the innermost secondaries centred with blackish and spotted with white like the back; tail-feathers olivaceous brown, with dusky centres; crown of head exactly like the back, the forehead dark slaty grey, blackish at the base and on the lores and base of cheeks; sides of face slaty grey, the ear-coverts shaded with brown and dotted with white, like the sides of the neck; throat and entire breast dark slaty grey; the abdomen white; sides of body black, barred with white; under tail-coverts white, with a mesial patch of black on the vent; under wing-coverts blackish, with whitish edges, the edge of the wing white; axillaries dusky brown, with white bars; quills uniform dusky brown below: "bill olive-green, orange-red at the base; feet dark olive-green" (*J. Gould*). Total length 7 inches, culmen 0·8, wing 4·1, tail 2·2, tarsus 1·2, middle toe and claw 1·5.

Hab. Australia.

a. Ad. st.	South Australia (*J. Gould*).	Sir G. Grey [P.].
b. Ad. sk.	New South Wales.	Gould Coll.
c. Ad. sk.	New South Wales.	Hume Coll.
d, *e*. Ad. sk.	Queensland (*J. T. Cockerell*).	Salvin-Godman Coll.

4. Porzana albicollis.

Ypacaha aplomado y pardo, *Azara*, *Apunt.* iii. p. 226 (1806).
Rallus albicollis, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 561 (1819).
Rallus olivaceus, *Vieill. t. c.* p. 561 (1819).
Crex mustelina, *Licht. Verz. Doubl.* p. 79 (1823); *Cab. in Schomb. Reis. Guian.* iii. p. 760 (1848).
Crex gularis, *Jard. & Selby, Ill. Orn.* i. pl. 39 (c. 1836).
Ortygometra olivacea, *Gray, List Gralle Brit. Mus.* p. 118 (1844).
Ortygometra albicollis, *Gray, Gen. B.* iii. p. 593 (1846); *Hartl. Ind. Azara*, p. 24 (1847); *Burm. Th. Bras.* iii. p. 387 (1856: San Paulo to Montevideo).
Corethrura mustelina, *Licht. Nomencl. Av.* p. 96 (1854).
Mustelirallus albicollis, *Bp. C. R.* xliii. p. 599 (1856).
Crex olivaceus, *E. C. Taylor, Ibis*, 1864, p. 96 (Trinidad).
Porzana albicollis, *Schl. Mus. Pays-Bas*, Ralli, p. 34 (1865: Surinam); *Scl. & Salv. P. Z. S.* 1868, p. 451; *Pelz. Orn. Bras.* p. 316 (Ypanema, Irisanga), p. 459 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 139 (1873); *Salvin, Ibis*, 1886, p. 176 (Roraima).
Corethrura olivacea, *Lévt. Ois. Trinid.* p. 499 (1866).
Aramides albicollis, *Gray, Hand-l. B.* iii. p. 60, no. 10432 (1871).
Galeolimnas albicollis, *Heine & Reich. Nom. Mus. Hein.* p. 320 (1890).

Adult. General colour above olivaceous brown, with broad black centres to all the feathers; the head like the back and similarly centred with black; wing-coverts like the back, the bastard-wing, primary-coverts, and quills uniform dusky brown, slightly edged with olivaceous brown; tail-feathers blackish, with olivaceous brown margins; lores, a narrow eyebrow, and sides of face pale ashy grey, the sides of the neck browner; throat whitish, shading off into ashy grey on the fore neck; the under surface of the body ashy grey, with whitish edges to the feathers of the lower abdomen and vent; sides of the body washed with brown; lower flanks and under tail-coverts black, edged and barred with white; under wing-coverts and axillaries dusky brown, with whitish edges to the feathers; quills uniform dusky brown below: "bill green; feet, toes, and claws purplish brown; iris reddish hazel" (*H. Whitely*). Total length 9·5 inches, culmen 1·15, wing 4·5, tail 1·9, tarsus 1·5, middle toe and claw 1·8.

Hab. From Paraguay and Southern Brazil to Guiana, Venezuela, and Trinidad.

a. Ad. sk.	South America.	Purchased.
b, c. Ad. sk.	Brazil.	Salvin-Godman Coll.
d. Ad. sk.	Brazil.	M. Claussen [P.].
e. ♂ ad. sk.	San Paulo, Brazil (*Joyner*).	Salvin-Godman Coll.
f. Ad. sk.	Santa Fé, Minas Geraes (*H. Rogers*).	Salvin-Godman Coll.
g, h, i. Ad. sk.	Bahia (*Dr. Wucherer*).	Salvin-Godman Coll.
k, l. Ad. sk.	Pernambuco (*W. A. Forbes*).	Salvin-Godman Coll.
m. Ad. st.	R. Amazon.	J. Gould, Esq.
n. Ad. sk.	Maroni River, Surinam (*Kappler*).	Salvin-Godman Coll.
o. Ad. sk.	Georgetown, Demerara.	Salvin-Godman Coll.
p. ♂ ad. sk.	Roraima, British Guiana, Dec. 29 (*H. Whitely*).	Salvin-Godman Coll.

5. Porzana intermedia.

Rallus intermedius, *Hermann*, *Obs. Zool.* i. p. 198 (1804, Strasbourg).

Rallus bailloni, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 548 (1819: Picardy); *Roux*, *Orn. Prov.* pl. 322 (1825); *Wright*, *Ibis*, 1864, p. 150 (Malta).

Gallinula bailloni, *Temm. Man. d'Orn.* ii. p. 692 (1820); *Werner*, *Atlas*, *Gralles*, pl. 37 (1827); *Crespon*, *Orn. Gard*, p. 452 (1840); *Schl. Rev. Crit.* p. ciii (1844); *id. Vog. Nederl.* p. 255 (1854); *Tristr. Ibis*, 1860, p. 80 (N. Africa); *Fallon*, *Ois. Belg.* p. 184 (1875).

Gallinula stellaris, *Temm. Man. d'Orn.* ii. p. 692 (1820).

Crex bailloni, *Boie*, *Isis*, 1822, p. 561; *Licht. Verz. Doubl.* p. 80 (1823); *Jard. & Selby*, *Ill. Orn.* i. pl. xv. (c. 1837); *Selys-Longch. Faune Belge*, p. 117 (1843); *Hewits. Eggs Br. B.* ii. p. 321, pl. xc. fig. 1 (1846); *Thomps. B. Irel.* ii. p. 321 (1850); *Macgill. Hist. Brit. B.* iv. p. 539 (1852); *Salv. Ibis*, 1859, p. 361 (E. Atlas); *Schl. Dier. Nederl. Vog.* pl. 26. figs. 4, 5 (1861); *R. Gray*, *B. W. Scotl.* p. 334 (1871); *Harting*, *Handb. Brit. B.* p. 58 (1872); *Cordeaux*, *Ibis*, 1875, p. 186 (Heligoland); *Seeb. Hist. Br. B.* ii. p. 543, pl. 23 (1884); *Lilford*, *Ibis*, 1889, p. 336 (Cyprus); *Seeb. Ibis*, 1892, p. 26 (Heligoland, May).

Ortygometra bailloni, *Steph. Gen. Zool.* xii. pt. 1, p. 228, pl. 27 (1824); *Sealy*, *Zool.* 1859, p. 6329; *Gray*, *List Br. B.* p. 180 (1863); *Giglioli*, *Ibis*, 1865, p. 62 (Pisa); *More*, *t. c.* p. 440; *Saunders*, *Ibis*, 1869, p. 172 (S. Spain); *Salvad. Faun. Ital.*, *Ucc.* p. 231 (1871); *Radde*, *Orn. Cauc.* p. 378 (1884); *Gigl. Avif. Ital.* p. 350 (1886); *id. op. cit.* 1st Resoc. p. 542 (1889); *Hartert*, *Ibis*, 1892, p. 513 (E. Prussia).

Gallinula pygmæa, *Brehm*, *Lehrb. Naturg. Eur. Vög.* ii. p. 641 (1824, *ex Naum.*); *id. Vogelf.* p. 330 (1856); *Severtz. Turkest. Jecotn.* p. 69 (1873).

Phalaridion pygmæa, *Kaup*, *Natürl. Syst.* p. 170 (1829).

Crex foljambei (*nec Mont.*), *Eyton*, *Cat. Brit. B.* p. 46 (1836).

Zapornia pygmæa, *Gould*, *B. Eur.* iv. pl. 344 (1837).

Crex pygmæa, *Naum. Vög. Deutschl.* ix. p. 567, Taf. 239 (1838); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 275 (1840: Crimea); *Rüpp. Syst. Uebers.* p. 128 (1845); *Danf. & Harvie Brown*, *Ibis*, 1875, p. 418 (Transylvania); *Gätke*, *Vogelw. Helgoland*, p. 532 (1891).

Ortygometra pygmæa, *Keys. u. Blas. Wirb. Eur.* p. lxviii (1840); *Gray*, *List Grallæ Brit. Mus.* p. 119 (1884); *id. Gen. B.* iii. p. 593 (1846); *Heugl. Syst. Uebers.* p. 62 (1856); *Linderm. Vög. Griechenl.* p. 129 (1860); *Gurney*, *Ibis*, 1865, p. 273 (Natal); *Borggr. Vogelf. Norddeutschl.* p. 106 (1869); *Gray*, *Hand-l. B.* iii. p. 63, no. 10461 (1871); *Gurney in Anderss. B. Dam.-Ld.* p. 317 (1872: Omanbondé; Lake Ngami); *Ayres*, *Ibis*, 1873, p. 283 (Transvaal); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 1235 (1873); *Brooke*, *Ibis*, 1873, p. 336 (Sardinia); *Ayres*, *Ibis*, 1874, p. 107 (Transvaal); *Fischer & Reichen. J. f. O.* 1879, p. 338 (Muniuni, Oct.); *Marsch. & Pelz. Orn. Vindob.* p. 119 (1882); *Fischer*, *J. f. O.* 1885, p. 117 (Wapokomo-land).

Porzana pygmæa, *Bp. Cat. Met. Ucc. Eur.* p. 64 (1842); *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 489 (1859); *Hartl. Faun. Madag.* p. 81 (1861); *E. Newton*, *Ibis*, 1863, p. 458 (Antananarivo); *Gould*, *B. Gt. Brit.* iv. pl. 89 (1864); *Schl. Mus. Pays-Bas*, Rall, p. 30 (1865: Picardy; Metz); *Overend*, *Zool.* 1866, p. 389; *Drake*,

Ibis, 1867, p. 429; *Fritsch, Vög. Eur.* tab. 32. fig. 3 (1870); *id. J. f. O.* 1871, p. 381 (Bohemia); *Sharpe, P. Z. S.* 1871, p. 319; *Gurney, Ibis*, 1871, p. 299 (Laghouat); *Shelley, B. Egypt*, p. 275 (1872); *Irby, B. Gibr.* p. 143 (1875); *Ayres, Ibis*, 1877, p. 351 (Transvaal); *Hartl. Vög. Madag.* p. 342 (1877); *Milne-Edw. & Grand. H. N. Madag., Ois.* ii. p. 578 (1879); *Tait, Ibis*, 1887, p. 382 (Portugal); *Reichen. Syst. Verz. Vög. Deutschl.* p. 44 (1889); *Schalow, J. f. O.* 1890, p. 39 (Brandenburg); *Sibree, Ibis*, 1892, p. 114 (Madagascar).

Baillon's Crake, *Yarr. Brit. B.* iii. p. 20 (1843).

Zapornia pygmæa, *Reichenb. Handb.* Fulicariæ, Taf. cxix. figs. 1179–82 (1851); *Bp. C. R.* xliii. p. 599 (1856); *Loche, Expl. Sci. Algér., Ois.* ii. p. 340 (1867); *Bartl. P. Z. S.* 1879, p. 772.

Porzana bailloni, *Degl. & Gerbe, Orn. Eur.* ii. p. 258 (1867); *Doderl. Avif. Sicil.* p. 201 (1869); *Saunders, Ibis*, 1871, p. 224 (S. Spain); *Dresser, Ibis*, 1876, p. 413; *id. B. Eur.* vii. p. 275, pl. 497 (1878); *More, Zool.* 1882, pp. 114, 115; *Butler, Feilden, & Reid, Zool.* 1882, p. 426 (Newcastle, Natal); *Saunders, ed. Yarr. Brit. B.* iii. p. 154 (1883); *B.O.U. List Brit. B.* p. 148 (1883); *Sharpe, ed. Layard's B. S. Afr.* p. 614 (1884); *Ayres, Ibis*, 1885, p. 346 (Transvaal); *Sharpe, Ibis*, 1888, p. 489 (Fao); *Salvad. Elench. Ucc. Ital.* p. 235 (1887); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 48 (1888).

Ortygometra minuta (*nec Pall.*), *Layard, B. S. Afr.* p. 338 (1867); *Madarász, Ausst. Ungar. Vogelf.* p. 113 (1891).

Ortygometra pusilla (*nec Pall.*), *Goebel, J. f. O.* 1879, p. 272 (Uman); *Müller, J. f. O.* 1887, p. 178 (Hesse).

Porzana pusilla (*nec Pall.*), *Boyd. Consp. Av. Imp. Ross.* p. 54 (1884, pt.).

Phalaridium sp. indet., *Olphe-Gall. Contr. Faun. Orn. Eur. Occid.* fasc. xvi. p. 30 (1887).

Gallinula pusilla (*nec Pall.*), *Koenig, J. f. O.* 1888, p. 275 (Tunis).

Gallinula minuta (*nec Pall.*), *Reiser, Vög. Mus. Sarajevo*, p. 117 (1891).

Phalaridium bailloni, *Heine & Reichen. Nomencl. Mus. Hein.* p. 319 (1890).

Adult male. General colour above dark ochreous brown, with black centres to nearly all the feathers, which are marked with white spots freckled with black; lower back black, freckled with white, but only slightly washed with ochreous brown; upper tail-coverts ochreous brown with black centres; lesser and median wing-coverts uniform ochreous brown like the back, the greater series with blackish centres and white frecklings; the innermost secondaries like the back, with broad black centres, the inner webs paler ochraceous brown, thereby forming a broad longitudinal band on each side of the back; bastard-wing, primary-coverts, and quills sepia-brown, the edges of the bastard-wing feathers and the first primary white; tail-feathers blackish, edged with dark ochreous brown; centre of crown and hind neck dark ochreous or reddish brown, only feebly streaked with black centres to the feathers; forehead and a broad eyebrow as well as the entire sides of face, throat, and breast clear slaty grey; abdomen, flanks, and thighs blackish mottled with white bars; under tail-coverts deep black barred with white; under wing-coverts and axillaries dusky

brown with a few white spots and bars ; quills dusky below : " bill green, darker at the tip ; legs, feet, and claws olive ; iris crimson " (*H. Seebohm*). Total length 7 inches, culmen 0·75, wing 3·5, tail 1·75, tarsus 1·05, middle toe and claw 1·5.

The adult male in winter plumage appears to have a whiter throat than in summer, and in all probability the entire throat gradually becomes slaty grey as the breeding-season approaches : " bill grass-green, the culmen dusky ; tarsi and toes greenish ; iris reddish orange " (*T. Ayres*).

Young. Is like the adult on the upper surface and is similarly marked with black and white, but the general tone of the plumage is rather more rufous ; the head like the back ; sides of the face rufous brown, as also the eyebrow ; lores whitish ; throat, breast, and abdomen dull white ; the fore neck and chest rufescent, barred across with dusky ; lower flanks, vent, and under tail-coverts black, barred with white : " iris light ashy brown " (*T. Ayres*).

The young birds probably do not attain their full grey plumage for at least a year, as a specimen procured near Potchefstroom on the 24th of April is still in immature plumage like the young bird above described, and differs only in the whiter under surface, the fore neck and chest alone retaining some remains of rufous shading and dusky bars. The eyebrow is whitish and more distinct. If this bird was going to moult into the grey plumage before its return to Europe, the change must be very rapidly performed.

Hab. Central Europe ; east to Persia, and south to Africa and Madagascar.

a, *b*, *c*. Ad. et pull. ; *d*. Juv. sk.	Europe.	Gould Coll.
e. Pull. st.	Europe.	Old Collection.
f. Ad. st.	Great Britain.	Gould Coll.
g. Ad. sk.	Great Britain.	Hume Coll.
h, *i*. Ad. et juv. sk.	Holland (*J. Baker*).	Salvin-Godman Coll.
k. Ad. sk.	Nice (*E. C. Taylor*).	Shelley Coll.
l. Ad. sk.	Fao, Persian Gulf.	W. D. Cumming, Esq. [P.].
m. ♂ ad. sk.	Damietta, Egypt (*Filipponi*).	Shelley Coll.
n. ♀ juv. sk.	Transvaal (*T. Ayres*).	Sharpe Coll.
o. ♀ ad. ; *p*, *q*. ♂ ♀ juv. sk.	Potchefstroom, Jan. to April (*T. Ayres*).	Gurney Coll.
r, *s*. Ad. sk.	Cape Colony.	Salvin-Godman Coll.
t. Ad. ; *u*, *v*, *w*. Imm. sk.	Cape Colony.	Sir A. Smith [C.].
x, *y*. ♂ ad. sk.	Newcastle, Natal, Oct. (*E. A. Butler & S. Reid*).	Shelley Coll.
z, *a'*. Ad. et juv. sk.	Madagascar (*F. Plant*).	Tweeddale Coll.
b'. Ad. sk.	Madagascar.	Shelley Coll.
c', *d'*. Ad. sk.	Ankafana Forest, Betsileo (*W. Deans Cowan*).	Tweeddale Coll.

6. Porzana affinis.

Ortygometra affinis, *Gray, Voy.'Erebus' & 'Terror,' Birds*, p. 14 (1846: North Island, N.Z.); *id. Gen. B.* p. 593 (1846); *id. Ibis*, 1862, p. 239; *Hutton, Ibis*, 1870, p. 394, 1872, p. 247 (Chatham Isl.); *Gray, Hand-l. B.* iii. p. 62, no. 10457 (1871); *Travers, Tr. N. Z. Inst.* v. p. 218 (1872, Chatham Isl.); *Buller, B. N. Zeal.* p. 182, pl. 22. fig. 1 (1873); *Sharpe, Voy. 'Erebus' 'Terror,'* App. p. 29 (1875); *Finsch, J. f. O.* 1878, p. 182; *Buller, B. N. Zeal.* 2nd ed. ii. p. 103 (1888).

Porzana affinis, *Bp. C. R.* xliii. p. 599 (1856).

Rallus punctatus, *Ellman, Zool.* 1861, p. 7470.

Ortygometra pygmæa, *Finsch* (*nec Brehm*), *Trans. Z. S.* viii. p. 102 (1876).

Adult. Similar to *P. intermedia*, but rather paler in general coloration and with a longer bill: "bill, tarsi, and toes pale brown, tinged with olive; iris dull red" (*Sir W. Buller*). Total length 7 inches, culmen 0·85, wing 3·3, tail 1·8, tarsus 1, middle toe and claw 1·45. (*Mus. Rothschild.*)

Hab. New Zealand.

a. Ad. sk. North Island, New Zealand. Percy Earl, Esq. [C.]. (Type of species.)

7. Porzana pusilla.

Rallus pusillus, *Pall. Reis. Russ. Reichs.* iii. App. p. 700 (1776); *Gm. Syst. Nat.* i. p. 719 (1788); *Lath. Ind. Orn.* p. 761 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 563 (1819).

Dwarf Rail, *Lath. Gen. Syn. Suppl.* ii. p. 323 (1801).

Rallus minutus, *Pall. Zoogr. Rosso-Asiat.* ii. p. 155 (1811).

Zapornia pusilla vel bailloni (*nec V.*), *Hodgs. Icon. ined. in Brit. Mus., Grallæ*, pl. 113. fig. 1 (no. 568); *id. in Gray's Zool. Misc.* p. 86 (1844).

Ortygometra pygmæa (*nec Brehm*), *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 142 (1846); *Hume, Str. F.* ii. p. 301 (1874: Andamans); *Prjev. in Rowley's Orn. Misc.* iii. p. 94 (1878: Ordos).

Porzana pygmæa (*nec Brehm*), *Blyth, Cat. B. Mus. As. Soc.* p. 284 (1849: Calcutta); *Jerd. B. Ind.* iii. p. 723 (1864); *Schl. Mus. Pays-Bas*, Ralli, p. 30 (1865, pt.); *Swinh. P. Z. S.* 1871, p. 414; *Hume & Henders. Lah. to Yark.* p. 223 (1873); *Taez. J. f. O.* 1873, p. 106; *Swinh. Ibis*, 1875, p. 134 (Chefoo); *Scully, Str. F.* iv. p. 193 (1876: E. Turkestan); *Ball, t. c.* p. 234 (Sumbulpur); *Fairb. t. c.* p. 263 (Ahmednuggur); *Blanf. Str. F.* v. p. 247 (1877: Munchur Lake); *Tacz. Bull. Soc. Zool. France*, i. p. 259 (1876); *David & Oust. Ois. Chine*, p. 487 (1877); *Walden, Tr. Z. S.* ix. pp. 230, 412 (1875); *Sharpe, Ibis*, 1877, p. 24 (Bintulu); *Biakist. & Pryer, Ibis*, 1878, p. 225; *Bidd. Ibis*, 1881, p. 98 (Gilgit); *Murray, Vertebr. Faun. Sind*, p. 264 (1884); *Styan, Ibis*, 1891, pp. 329, 501 (Lower Yangtze).

Ortygometra minuta (*nec Pall.*), *Radde, Reis. Sibir., Vög.* p. 311 (1863: Tarei-nor; Kärinsk).

Porzana bailloni (*nec V.*), *Swinh. Ibis*, 1867, p. 839 (Amoy, Foochow); *Hume & Davison, Str. F.* vi. p. 467 (1878: Tavoy); *Ball, Str. F.* vii. p. 229 (1878: Godaveri); *Hume, t. c.* p. 489 (Calcutta); *Legge, B. Ceylon*, p. 766 (1879); *Butler, Cat. B. Sind etc.* p. 67 (1879); *Hume, Str. F.* viii. p. 113 (1879); *Scully, t. c.* p. 358 (Nepal); *Hume & Marsh. Game Birds Ind.* ii. p. 203, pl. 35 (1879); *Butler, Cat. B. S. Bomb. Pres.* p. 80 (1880); *Vidal,*

Str. F. ix. p. 87 (1880: Ratnagiri); *Hume, t. c.* p. 259 (Cachar); *Reid, Str. F.* x. p. 73 (1881: Lucknow); *Scully, Ibis*, 1881, p. 590 (Gilgit); *C. Swinh. Ibis*, 1882, p. 123 (Kandahar); *Oates, Handb. B. Brit. Burm.* ii. p. 334 (1883); *Davison, Str. F.* x. p. 415 (1883: Wynaad); *Seeb. Ibis*, 1884, p. 269 (Kiukiang); *Swinh. & Barnes, Ibis*, 1885, p. 135 (Mhow); *Wardlaw Ramsay, Ibis*, 1866, p. 161 (Manilla); *McGregor, Str. F.* x. p. 441 (1887: Mahratta country); *Hume, Str. F.* xi. p. 328 (1888); *St. John, Ibis*, 1889, p. 178 (S. Afghanistan); *Everett, Journ. Straits Br. Asiat. Soc.* 1889, p. 202.

Ortygometra bailloni (*nec V.*), *Dybowski, J. f. O.* 1868, p. 338 (Dauria, breeding); *Deditius, J. f. O.* 1886, p. 538 (Hoangho River); *Sharpe, Tr. Linn. Soc.* (2) *Zool.* v. pt. 3, p. 90 (1889).

Crex bailloni (*nec V.*), *Brooks, J. A. S. Beng.* xii. p. 86 (1872: Cashmere).

Zapornia pygmæa (*nec Brehm*), *Hume, Nests & Eggs Ind. B.* p. 603 (1873); *Butler, Str. F.* v. p. 215 (1877: Deesa).

Rallus bailloni (*nec V.*), *Blakist. Amend. List B. Japan*, pp. 13, 42 (1884); *Seeb. Ibis*, 1884, p. 35 (Yokohama).

Porzana pusilla, *Boyd. Consp. Av. Imp. Ross.* p. 54 (1884, pt.); *Taez. P. Z. S.* 1888, p. 458 (Corea); *Oates, ed. Hume's Nests & Eggs*, iii. p. 395 (1890); *Grant, Ann. & Mag. N. H.* (6) v. p. 80 (1890); *Sharpe, Sci. Res. Sec. Yark. Miss., Aves*, p. 147 (1891).

Crex pusilla, *Sreb. B. Japan. Emp.* p. 356 (1890).

Porzana intermedia (*nec Hermann*), *Stejneger, Proc. U.S. Nat. Mus.* ix. p. 396 (1886).

Adult male. Similar to *P. intermedia*, but rather paler grey, and distinguished by having a distinct band of reddish brown along the ear-coverts to the sides of the neck: "bill green, dusky on the culmen and at the tips; legs and feet green, with a yellowish tinge, sometimes brownish olive, sometimes pale green or pale olive-green; claws pale brown; iris normally red, sometimes briar-red, crimson, or carmine" (*A. O. Hume*). Total length 7 inches, culmen 0·75, wing 3·5, tail 1·65, tarsus 1·1, middle toe and claw 1·5.

Adult female. Similar to the male in colour. Total length 7 inches, culmen 0·65, wing 3·7, tail 1·7, tarsus 1·1.

Young. Resembles that of *P. intermedia*: "iris orange-red or reddish brown" (*A. O. Hume*).

Two specimens from Calcutta in the Hume Collection, procured in January, are changing into the full plumage of the adult, and apparently by a change in the actual colour of the feather from white to grey, as I cannot discover any moulting feathers.

This Eastern race of *P. intermedia* appears at first sight to be very distinct and to be easily recognized by the brown stripe along the ear-coverts; but this is not absolutely characteristic of *P. pusilla*, for in a specimen of *P. intermedia* from Nice the brown mark on the ear-coverts is very distinctly indicated, while on the other hand specimens of *P. pusilla* from Deesa show scarcely any brown on the ear-coverts at all; and it is probably on the border line of the range of the two species that a transition takes place between them.

Hab. Eastern Siberia and Japan, wintering in China and the Philippine Islands, and in the Indian Peninsula, Afghanistan, and Baluchistan.

a. Juv. sk.	Mekran Coast (*E. A. Butler*).	Hume Coll.
b. Juv. sk.	Shâhidula, Yarkaud, Sept. 19 (*Dr. G. Henderson*).	Hume Coll.
c, *d*. ♂ ♀ ad. sk.	Kandahar, Feb.	Col. Swinhoe [P.].
e. Juv. sk.	Afghanistan (*Griffith*).	India Museum.
f. ♀ juv. sk.	Nushki, N. Afghanistan, Sept. 26.	Dr. Aitchison [C.].
g. ♂ juv. sk.	Quetta, Oct. 8 (*Sir O. St. John*).	Hume Coll.
h, *i*. ♂ ad. et imm. ; *k*, *l*. ♀ juv. sk.	Deesa, Sept. 11–13 (*E. A. Butler*).	Hume Coll.
m. Ad. sk.	Delhi, Jan.	Hume Coll.
n–*p*. ♀ ad. et imm. sk.	Gurgaon District, Sept., April (*W. N. Chill*).	Hume Coll.
q. Ad. sk.	Sirsa District.	Hume Coll.
r. ♀ ad. sk.	Cashmere, May 21 (*W. E. Brooks*).	Hume Coll.
s–*v*. ♂ juv. sk.	Simla, Aug. (*F. Thompson*).	Hume Coll.
w. ♀ ad. sk.	Simla.	Hume Coll.
x. ♀ ad. ; *y*. ♂ juv. sk.	Allahabad, Oct. (*J. Cockburn*).	Hume Coll.
z. ♂ juv. sk.	Etawah.	Hume Coll.
a', *b'*. Ad. ; *c'*. ♀ juv. sk.	Jheenjuck Jheel, Etawah, Sept.	Hume Coll.
d'. Ad. ; *e'*, *f'*, *g'*. Juv. sk.	Oudh.	Pinwill Coll.
h'. ♂ ad. sk.	Lucknow, Nov. 29 (*G. Reid*).	Hume Coll.
i'. Ad. sk.	Nepal.	Hodgson Coll.
k'. Ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
l', *m'*. ♂ ♀ ad. sk.	Nepal Valley, Nov. (*J. Scully*).	Hume Coll.
n'. Juv. sk.	Nurserabad.	H. F. Bellamy, Esq. [P.].
o'. ♀ juv. sk.	Raipur.	Hume Coll.
p'. Juv. sk.	Saugor (*Hooper*).	India Museum.
q'. ♀ juv. sk.	Ahmednuggur, Nov. 27 (*S. B. Fairbank*).	Tweeddale Coll.
r'. Juv. sk.	Madras (*Jerdon*).	Gould Coll.
s'. ♀ juv. sk.	Trevandrum, Travancore, Nov. 18.	F. W. Bourdillon, Esq. [C.].
t'–*w'*. ♂ ad. ; *x'*–*d''*. ♀ ad. sk.	Calcutta, Dec.–Feb.	Hume Coll.
e''. Ad. sk.	Dacca.	Hume Coll.
f''. ♀ imm. sk.	N. Khasia Hills, Feb. (*A. W. Chennell*).	Tweeddale Coll.
g''. Ad. sk.	Tippera.	Hume Coll.
h''. Ad. sk.	Burma (*Haughton*).	Tweeddale Coll.
i'', *k''*. Imm. sk.	Tonghoo.	Tweeddale Coll.
l''. ♂ imm. sk.	Pegu, Nov. 19 (*E. W. O.*).	Oates Coll.
m'', *n''*. ♂ ad. ; *o''*. ♀ ad. sk.	Tavoy, Tenasserim, April, May (*W. Davison*).	Hume Coll.
p''. ♂ imm. sk.	South Andamans, Dec. 29 (*R. G. W. R.*).	Tweeddale Coll.
q''. ♀ imm. sk.	Port Mouat, April 15 (*W. Davison*).	Hume Coll.
r''. ♂ ad. sk.	Bintulu, Sarawak.	A. H. Everett, Esq. [C.].

s'', *t''*. Imm. sk.	Manila, Luzon (*Maitland Heriot*).	Tweeddale Coll.
u''. Ad. sk.	Fokien, China.	Gould Coll.
v''. Ad. sk.	Canton (*Tuckett*).	Tweeddale Coll.
w'', *x''*. ♂ ♀ ad. sk.	Shanghai, April.	F. W. Styan, Esq. [P.].
y''. Juv. sk.	Shanghai.	Shanghai Museum.
z''. Ad. sk.	Shanghai.	Mrs. Ince [P.].
*a*³. Ad. sk.	Shanghai, May.	Consul Swinhoe [C.].

8. Porzana palustris.

Porzana palustris, *Gould, P. Z. S.* 1842, p. 139; *id. B. Austr.* vi. pl. 80 (1848); *Bp. C. R.* xliii. p. 599 (1856); *Gould, Handb. B. Austr.* ii. p. 340 (1865); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 193 (1876), ii. p. 200 (1877); *Ramsay, P. Z. S.* 1877, p. 345 (Queensland); *North, Proc. Linn. Soc. N. S. W.* vii. p. 53, pl. 3. fig. 14 (1882: egg); *id. op. cit.* (2) i. p. 1172 (1886), iii. p. 1779 (1888: Cumberland distr.); *Ramsay, Tab. List Austr. B.* p. 24 (1888); *North, Nests & Eggs Austr. B.* p. 332 (1890).

Ortygometra palustris, *Gray, List Gralle Brit. Mus.* p. 119 (1844); *id. Gen. B.* iii. p. 593 (1846); *id. Hand-l. B.* iii. p. 62, no. 10453 (1871); *Reichen. & Heine, Nomencl. Mus. Hein.* p. 319 (1890).

Adult male. Similar to *P. intermedia*, but everywhere paler; the throat and breast pale ashy grey; centre of abdomen white: "bill and feet olive-brown" (*J. Gould*). Total length 6 inches, culmen 0·65, wing 3·2, tail 1·6, tarsus 0·95, middle toe and claw 1·4.

Young. Differs from the adult exactly in the same way as the young of *P. intermedia*.

Hab. Australia.

a, *b*. Ad. st.	South Australia (*J. Gould*).	Sir G. Grey [P.].
c. Ad. sk.	South Australia (*J. Gould*).	Sir G. Grey [P.].
d, *e*. Ad. sk.	New South Wales.	Gould Coll.
f. Juv. sk.	Dobroyde, N. S. W.	Gould Coll.
g, *h*. Ad. sk.	Queensland (*J. T. Cockerell*).	Salvin-Godman Coll.
i. Ad. sk.	Wanganui River, New Zealand.	Percy Earl, Esq. [P.].

9. Porzana spiloptera.

Porzana spiloptera, *ex Burm. MSS., Durnf. Ibis*, 1877, p. 194, pl. 3 (Buenos Ayres).

Porzana salinazi (*nec Philippi*), *Scl. & Hudson, Argent. Orn.* ii. p. 155 (1889).

Adult male (type of species). General colour above dark olive-brown, the feathers with broad black centres; wing-coverts with a good deal of black, which is crossed by bars of white, giving an appearance of being barred with black and white; the outer coverts and bastard-wing brown, with a few white spots on the edge of the latter: primary-coverts uniform blackish brown; quills brown, the first primary notched with whitish spots

on the outer web; the inner secondaries olive-brown, with broad black centres, resembling the dorsal plumage; upper tail-coverts like the back, but with a few white spots; tail-feathers black, edged with olive-brown; crown of head rather darker than the back, the forehead and lores being especially blackish, as well as the feathers round the eye and ear-coverts, these last having a shade of leaden grey; cheeks, sides of neck, and under surface of body leaden grey; the lower abdomen whitish; vent-feathers fulvous; flanks black, conspicuously barred with white; under tail-coverts black, barred or spotted and tipped with white; under wing-coverts white, mottled with blackish bases to the feathers; lower primary-coverts uniform ashy like the quill-lining; axillaries blackish, with whitish bars: "bill very dark horn, nearly black; legs and feet of a browner colour and rather lighter; iris crimson, inclining to scarlet" (*H. Durnford*). Total length 5·5 inches, culmen 0·6, wing 3, tail 1·4, tarsus 0·9, middle toe and claw 1·1.

Hab. Buenos Aires.

a. ♂ ad. sk.	Belgrano, Buenos Aires, Aug. 24.	H. Durnford, Esq. [C.]. (Type of species.)

10. Porzana flaviventris.

Petit Râle de Cayenne, *Daubent. Pl. Enl.* ix. pl. 847; *Buff. Hist. Nat. Ois.* viii. p. 167 (1781).
Little Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 239 (1785).
Rallus flaviventer, *Bodd. Tabl. Pl. Enl.* p. 52 (1783).
Rallus minutus, *Gm. Syst. Nat.* i. p. 719 (1788); *Denny, P. Z. S.* 1847, p. 41; *Lembeye, Av. Cuba*, p. 109 (1850); *Brewer, Proc. Bost. Soc. N. H.* vii. p. 308 (1860).
Ypacaha ceja blanca, *Azara, Apunt.* iii. p. 231 (1806).
Rallus superciliaris, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 565 (1819).
Ortygometra flaviventris, *Gray, Gen. B.* iii. p. 593 (1846); *Hartl. Ind. Azara*, p. 24 (1847).
Ortygometra minuta. *Gosse, B. Jamaica*, p. 372, pl. civ. (1847); *Burm. Th. Bras.* iii. p. 358 (1856).
Crex minuta, *Reichenb. Handb.* Fulicariæ, pl. cccxxii. fig. 2574 (1851); *Scl. P. Z. S.* 1861, p. 81.
Corethrura minuta, *Licht. Nomencl. Av.* p. 96 (1854).
Laterirallus gossii, *Bp. C. R.* xliii. p. 599 (1856).
Erythra minuta, *Bp. C. R.* xliii. p. 600 (1856).
Crybastus gossii, *Cab. J. f. O.* 1856, p. 428; *Gundl. J. f. O.* 1875, p. 358; *id. Orn. Cuba*, p. 191 (1876).
Porzana minuta, *March, Proc. Philad. Acad.* 1864, p. 69.
Porzana flaviventer, *Schl. Mus. Pays-Bas*, Ralli, p. 31 (1865); *A. & E. Newt. Handb. B. Jamaica*, 1881, p. 114.
Porzana flaviventris, *Scl. & Salv. P. Z. S.* 1868, p. 455; *Pelz. Orn. Bras.* p. 459 (1871: S.E. Brazil); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Cory, B. W. Ind.* p. 255 (1889); *Scott, Auk*, ix. p. 11 (1892: Jamaica).
Aramides flaviventer, *Gray, Hand-l. B.* iii. p. 61, no. 10443 (1871).

Adult. General colour above brown, the feathers centred with

black, and many of them having mesial streaks of white; scapulars for the most part tawny colour, forming a broad longitudinal band down each side of the back; the lower back and rump marked like the upper back, but not so distinctly as the latter; wing-coverts light tawny brown, the median and greater series mottled with black and spotted and barred with white; primary-coverts dark sepia-brown, the bastard-wing and quills more ashy brown edged with lighter brown; the first primary externally white, the inner secondaries like the back; tail-feathers blackish, externally light brown; crown of head uniform blackish brown; sides of the crown lighter brown like the sides of the neck; lores blackish, with a very distinct supraloral streak of white; the sides of the face and ear-coverts tawny buff, the latter somewhat washed with ashy; under surface of body whitish, the fore neck and chest washed with pale tawny buff; the sides of the breast and flanks as well as the under tail-coverts regularly barred with black and white; the under wing-coverts white, with a few dusky bars principally near the edge of the wing; axillaries white, barred with dusky blackish: "bill olive; legs and feet yellowish" (*W. E. D. Scott*). Total length 5 inches, culmen 0·6, wing 2·7, tail 1·35, tarsus 0·8, middle toe and claw 1·35.

Hab. Cuba; Jamaica; South America from Guiana to Southern Brazil.

a. ♂ ad. sk.	Jamaica.	Gosse Coll. (Type of *L. gossii*.)
b. Ad. sk.	Oyapoc River, Cayenne (*Jelski*).	Salvin-Godman Coll.
c. ♂ ad. sk.	Brazil.	Salvin-Godman Coll.

11. Porzana tabuensis *.

Tabuan Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 235 (1785).
Rallus tabuensis, *Gm. Syst. Nat.* i. p. 717 (1788); *Lath. Ind. Orn.* ii. p. 758 (1890); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 559 (1819).
Crex plumbea, *Gray in Griffith ed. Cuvier*, iii. p. 410 (1829).
Gallinula immaculata, *Swains. An. in Menag.* p. 337 (1837).

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* PORZANA TAHITIENSIS

Otaheite Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 236 (1783).
Rallus tahitiensis, *Gm. Syst. Nat.* i. p. 717 (1788); *Lath. Ind. Orn.* ii. p. 759 (1790).
Rallus minutus (pt.), *Forst. Descr. An.* p. 178 (1844: ex Otaheite tantum).
Corethrura tahitiensis, *Gray, Gen. B.* iii. p. 595 (1845).
Porzana tahitiensis, *Hartl. Wiegm. Arch.* 1852, p. 136; *id. J. f. O.* 1854, p. 169.
Zapornia tahitiensis, *Bonap. C. R.* xliii. p. 599 (1856).
Ortygometra tahitiensis, *Gray, B. Trop. Is.* p. 52 (1859); *Finsch & Hartl. Orn. Centralpol.* p. 170 (1870); *Wiglesw. Av. Polyn.* p. 61 (1891).
Aramus tahitiensis, *Gray, Hand-l. B.* iii. p. 59, no. 10412 (1871).

This species is supposed to differ from *O. tabuensis* of Gmelin "by its white first primary and the white margins of the others" (*cf.* Wiglesworth. *l. c.*). It is very doubtful whether there is any real difference between this bird and *P. tabuensis*.

Ortygometra plumbea, *Gray, List Grallæ*, p. 120 (1844).
Rallus minutus (*nec Gm.*), *Forster, Icon. ined.* fig. 130 ; *id. Descr. Anim.* p. 178 (1844 : Tongatabu).
Corethrura tabuensis, *Gray, Gen. B.* iii. p. 595 (1846).
Ortygometra tabuensis, *Gray, Voy.* '*Erebus*' *&* '*Terror*,' *Birds*, p. 14 (1846) ; *id. Cat. B. Trop. Isl.* p. 53 (1859) ; *id. Ibis*, 1862, p. 239 ; *Hartl. & Finsch, Faun. Centralpolyn.* p. 167 (1867) ; *iid. J. f. O.* 1870, p. 122 ; *Graeffe, t. c.* pp. 402, 415 ; *Hutton, Ibis*, 1870, p. 394 ; *Gray, Hand-l. B.* iii. p. 63, no. 10463 (1871) ; *Finsch, J. f. O.* 1872, pp. 38, 53 (Upolu), p. 183 (Wanganui) ; *Hutton, Ibis*, 1872, p. 247 (Chatham Isl.) ; *Travers, Trans. N. Z. Inst.* v. p. 218 (1872) ; *Buller, B. N. Zeal.* p. 181, pl. 21. fig. 2 (1873) ; *Finsch, J. f. O.* 1874, p. 201 ; *Layard, P. Z. S.* 1875, p. 439, 1876, p. 497 ; *Whitmee, Ibis*, 1875, p. 447 (Samoa) ; *Sharpe, Voy.* '*Erebus*' *&* '*Terror*,' App. p. 29 (1875) ; *Layard, Ibis*, 1876, p. 393 (Ovalau, Viti Levu) ; *Ramsay, Proc. Linn. Soc.* i. p. 76 (1876) ; *Finsch, P. Z. S.* 1877, p. 775 ; *id. J. f. O.* 1878, p. 183 ; *E. L. & L. C. Layard, Ibis*, 1878, p. 264 (New Caledonia) ; *Oust. Bull. Soc. Philom.* 1879, p. 220 ; *Finsch, J. f. O.* 1880, pp. 297, 307 ; *id. Ibis*, 1881, pp. 106, 109 ; *id. J. f. O.* 1882, p. 307 (Kushai) ; *E. L. & L. C. Layard, Ibis*, 1882, pp. 537, 544 (New Caledonia) ; *Buller, B. New Zeal.* 2nd ed. ii. p. 101, pl. 23. fig. 1 (1888) ; *Reichen. J. f. O.* 1891, p. 127 ; *Wiglesw. Abhandl. Zool. Mus. Dresd.* no. 6, p. 60 (1891).
Zapornia spilonota (*nec Gould*), *Peale, U.S. Expl. Exped., Aves*, p. 224 (1848 : Fiji) ; *Hartl. Arch. f. Nat.* 1852, p. 136.
Porzana immaculata, *Gould, B. Austr.* vi. pl. 82 (1848) ; *Marie, Actes Soc. Linn. Bordeaux*, xxvii. p. 328 (1870) ; *Schl. Mus. Pays-Bas*, Ralli, p. 36 (1865).
Porzana spilonota, var., *Hartl. in Wiegm. Arch.* 1852, p. 136.
Porzana vitiensis, *Hartl. J. f. O.* 1854, p. 169.
Porzana tabuensis, *Hartl. J. f. O.* 1854, p. 169 (Society Isl.) ; *Gould, Handb. B. Austr.* ii. p. 341 (1865) ; *Schl. Mus. Pays-Bas*, Ralli, p. 36 (1865) ; *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 194 (1876) ; *id. P. Z. S.* 1877, p. 345 (Queensland) ; *id. Proc. Linn. Soc. N. S. W.* ii. p. 200 (1877) ; *Wardlaw Ramsay, Ibis*, 1886, p. 161 (Manila) ; *Ramsay, Tab. List Austr. B.* p. 25 (1888).
Zapornia tabuensis, *Bp. C. R.* xliii. p. 599 (1856).
Zapornia umbrina, *Cass. Proc. Philad. Acad.* viii. p. 254 (1856) ; *id. U.S. Expl. Exped., Birds*, p. 305, pl. 35. fig. 2 (1858).
Zapornia umbrata, *Hartl. Arch. f. Nat.* 1858, p. 29.
Rallus minor, *Elbnan, Zool.* 1861, p. 7470.
Phalaridium tabuense, *Heine & Reichen. Nomencl. Mus. Hein.* p. 319 (1890).

Adult male. General colour above chocolate-brown, a little more dusky on the lower back and rump ; upper tail-coverts blackish like the tail ; wing-coverts chocolate-brown like the back ; bastard-wing, primary-coverts, and quills dusky brown, the first primary whitish along the outer edge ; the innermost secondaries chocolate-brown like the back ; crown of head and neck blackish brown ; sides of face and entire under surface slaty grey, the throat paler ; under tail-coverts black, with white bars ; under wing-coverts ashy brown, with whitish edgings : " bill black ; feet dull brick-red ; iris and eyelash bright red " (*J. Gould*). Total length 6·3 inches,

culmen 0·5, wing 3, tail 1·7, tarsus 1·05, middle toe and claw 1·27.

Adult female. Similar to the male in colour. Total length 6·7 inches, culmen 0·75, wing 3·15, tail 1·6, tarsus 0·95, middle toe and claw 1·3.

Young. Differs from the adult in having the throat white and the centre of chest and abdomen for the most part white.

Hab. Oceania. Tonga group; Samoa and Fiji Islands; New Hebrides; New Caledonia; Australia and Tasmania; New Zealand; Chatham Islands; Philippine Islands.

a. Ad. sk.	——?	Old Coll. (Type of *Crex plumbea.*)
b. ♂ ad. sk.	Ovalau, Fiji Islands, Aug. (*F. M. Rayner*).	Voy. H.M.S. 'Herald.'
c, d. ♀ ad. sk.	Ngau Island, Oct. (*F. M. Rayner*).	Voy. H.M.S. 'Herald.'
e. ♂ juv. sk.	Viti Levu, Jan. 22 (*E. L. Layard*).	Tweeddale Coll.
f. Ad. sk.	Savage Island.	Rev. J. S. Whitmee [C.].
g, h. ♂ ♀ ad. sk.	Aneiteum, New Hebrides, Dec. 8 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
i. Ad. sk.	Australia.	Salvin-Godman Coll.
k. Ad. sk.	Australia.	Gould Coll.
l, m. Ad. sk.	West Australia.	Purchased.
n. ♀ ad. sk.	West Australia, April.	Hume Coll.
o. Ad. sk.	South Australia.	Sir G. Grey [P.].
p. Ad. sk.	New Zealand.	W. Mantell, Esq. [C.].
q. Ad. sk.	New Zealand.	Percy Earl, Esq. [P.].
r. Ad. sk.	Stewart's Island, N.Z.	Capt. Stokes [P.].
s. Imm. sk.	Chatham Islands.	H. O. Forbes, Esq. [C.].
t. Juv. sk.	Manila, Luzon (*Maitland Heriot*).	Tweeddale Coll.

12. Porzana galapagoensis.

Porzana spilonota (pt.), *Salvin, Trans. Z. S.* ix. p. 500 (1876).

Adult male. Similar to *O. tabuensis*, but distinguished by the absence of the white edge to the first primary and also by the shorter wings and tail. Total length 5·5 inches, culmen 1·6, wing 2·9, tail 1, tarsus 1, middle toe and claw 1·2.

Hab. Galapagos Archipelago; exact island not indicated.

a. Ad. sk.	Galapagos Islands.	Voy. H.M.S. 'Beagle.'
b. Ad. sk.	Galapagos Islands.	Capt. Burnett & Admiral Fitzroy [P.].

13. Porzana bicolor.

Porzana bicolor, *Walden, Ann. & Mag. Nat. Hist.* (4) ix. p. 47 (1872); *Godwin-Austen, J. A. S. Beng.* xliii. p. 174 (1874: Shillong); *Hume, Str. F.* viii. p. 113 (1879); *id. & Marsh. Game B. Ind.* ii. p. 223, pl. 38. fig. 1 (1879); *Hume, Str. F.* xi. p. 329 (1888: Manipur).

Porzana elwesi, *Hume, Str. F.* iii. p. 283 note (1875).

Adult. General colour above rufous brown, the wing-coverts and

inner secondaries like the back; bastard-wing, primary-coverts, and quills dark brown, externally rufescent brown; tail-feathers black; head, neck, and underparts dark slaty grey, a little more dusky on the head; cheeks and throat a little paler grey; sides of vent and under tail-coverts dusky brown; under wing-coverts and axillaries dusky, slightly washed with rufous brown. Total length 8 inches, culmen 1·05, wing 4·4, tail 1·9, tarsus 1·35.

Hab. Eastern Himalayas from Nepal to the Hills of Assam and Manipur.

a. Ad. sk.	Himalayas.	Purchased.
b. Ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
c, *d*, *e*. Ad.; *f*. Juv. sk.	Native Sikhim, March, May, Dec. (*L. Mandelli*).	Hume Coll.
g. ♀ ad. sk.	Choongtam, Sikhim, Sept. 29 (*H. J. Elwes*).	Hume Coll. (Type of *P. elwesi*.)
h. Ad. sk.	Lebong, Sikhim.	Hume Coll.
i. Ad. sk.	Darjeeling, Nov.	Tweeddale Coll. (Type of species.)

27. PENNULA.

	Type.
Pennula, *Dole, Hawaiian Annual*, 1879, p. 14	P. ecaudata.

Range. Sandwich Islands.

1. Pennula ecaudata.

Rallus ecaudatus, *J. King in Cook's Voyage Pacific Ocean*, iii. p. 119 (1784).
Dusky Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 237 (1785).
? Sandwich Rail, *Lath. t. c.* p. 236.
Rallus obscurus, *Gm. Syst. Nat.* i. p. 718 (1788).
? Rallus sandwichensis, *Gm. Syst. Nat.* i. p. 325 (1788); *Hartl. Abhandl. nat. Ver. Bremen*, xii. Heft 3, p. 397 (1892).
Moho, *Peale, P. Z. S.* 1862, p. 145.
Pennula millsi, *Dole, Hawaiian Annual*, 1879, p. 14; *A. Newton, P. Z. S.* 1889, p. 5.
Pennula ecaudata, *Hartl. Abhandl. nat. Ver. Bremen*, xii. Heft 3, p. 396 (1892); *Sharpe, Bull. Brit. Orn. Club*, no. iv. p. xx (Dec. 1892); *Hartl. op. cit.* no. v. p. xxiv (Jan. 1893).
Pennula sandwichensis, *Sharpe, Bull. Brit. Orn. Club*, no. iv. p. xx (Dec. 1892)*.

Adult. General colour above dark vinous chocolate-brown, a little more dingy on the head, lower back, rump, and upper tail-coverts, the latter being all somewhat mottled with blackish bases to the feathers; wing-coverts like the back; quills blackish, with chocolate-brown edges; tail-feathers concealed, blackish with chocolate-brown edges; lores fulvescent; ear-coverts dark ashy; cheeks, throat, and breast deep vinous, shading off into dusky chocolate-brown on the abdomen, flanks, and under tail-coverts;

* Dr. Hartlaub (*op. cit.* no. v. p. xxiv) dissents from my opinion that *P. sandwichensis* is the same as *P. ecaudata*.

chin whitish; under wing-coverts and quill-lining dark chocolate-brown. Total length 5·5 inches, culmen 0·7, wing 2·6, tail 0·55, tarsus 1·1, middle toe and claw 1·5. (*Mus. W. Rothschild.*)

Hab. Uplands of Hawaii, Sandwich Islands.

28. APHANOLIMNAS.

	Type.
Kittlitzia, *Hartl. Abhandl. nat. Ver. Bremen*, xii. Heft 3, p. 391 (1892; *nec Hartert, Kat. Vogels. Senckenb. Mus.* p. 75)	A. monasa.
Aphanolimnas, *Sharpe, Bull. Brit. Orn. Club*, no. iv. p. xx (1892)	A. monasa.

Range. Island of Kushai or Ualan.

1. Aphanolimnas monasa.

Rallus monasa, *Kittl. Denkwürd. Reis. russ. Amerika*, ii. p. 30 (1858).

Kittlitzia monasa, *Hartl. Abhandl. nat. Ver. Bremen*, xii. p. 391 (1892).

Aphanolimnas monasa, *Sharpe, Bull. Brit. Orn. Club*, no. iv. p. xx (1892).

Adult. Black with a bluish-grey reflexion; quills and tail somewhat browner; inner wing-coverts brownish with white spotting, outer edge of first primary dull brownish; chin and middle of the throat somewhat paler; bill blackish. (*Hartlaub.*)

Hab. Kushai.

29. CORETHRURA*.

	Type.
Alechthelia, *Swains.* (*nec Less.*) *Class. B.* ii. p. 358 (1837)	C. lineata.
Corethrura, *Reichenb. Syst. Av.* tab. xxi. figs. 1–4 (1845? descr. nullâ).	
Saurothrura, *Heine & Reichen. Nomencl. Mus. Hein.* p. 319 (1890; nom. emend.)	C. rufa.

Range. Africa and Madagascar.

Key to the Species.

a. Tail uniform chestnut.

a'. Wing-coverts black, spotted with white like the back and breast ..... *pulchra* ♂, p. 116.

b'. Wing-coverts streaked with white or buffy white like the back and breast.

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* I have not yet been able to identify the following species, which was also a puzzle to Lord Tweeddale (*cf.* Tr. Z. S. ix. p. 232):—

Porzana circoleps, *Less. Traité*, p. 538 (1831, *ex* Râle ecaudé, *Cuv. MSS. in Mus. Paris*).

Corethrura circoleps, *Bonap. C. R.* xliii. p. 599 (1856).

Rallus ecaudatus, *Cuv., teste Bp.*

Ortygometra cercoleps, *Gray, Hand-l. B.* iii. p. 64, no. 10474 (1871).

Rallus caudatus, *Cuv., teste Gray.*

Hab. Philippine Islands?

a''. Larger: throat, fore neck, and chest rufous like the crown ..... *insularis* ♂, p. 118.
b''. Smaller: throat whitish, washed with rufous; the lower throat, fore neck, and chest black, streaked with white like the rest of the under surface ..... *lineata* ♂, p. 118.
c'. Wing-coverts banded with sandy buff like the back and breast ..... *pulchra* ♀, p. 116.
d'. Wing-coverts dark chocolate-brown, with indistinct black centres to the feathers, like the back; breast ashy brown..... *watersi* ♂, p. 119.
b. Tail chestnut, barred with black.
e'. Head and neck chestnut like the throat and chest; back black, banded with ocheous.. *pulchra* ♀, p. 116.
f'. Head and neck streaked with black and ochre, like the back ..... *insularis* ♀, p. 118.
c. Tail black, with rufous bands.
g'. Head and neck bright chestnut, like the lower throat and chest ..... *elegans* ♂, p. 120.
h'. Head brown, with fulvous streaks or bars.. *reichenovi* ♂, p. 121.
c''. Larger: crown of head barred with black; back and wing-coverts spotted with ochre; chest brown, mottled with ochre and black bars; abdomen white, barred with black ..... *elegans* ♀, p. 120.
d''. Smaller: crown of head streaked with black; back and wing-coverts barred with black; under surface of body white, with spots of black, only the flanks being barred with black ..... *lineata* ♀, p. 118.
i'. Head uniform brown; throat and chest whitish..... ..... *watersi* ♀, p. 119.
d. Tail black, or with minute spots of white.
k'. Head and neck chestnut like the throat and chest.
e''. Larger: tarsus 1 inch; head and neck deep vinous chestnut ..... *rufa* ♂, p. 121. / *lugens* ♂, p. 123.
f''. Smaller: tarsus 0·8 inch; head and neck lighter chestnut ..... *bonapartii* ♂, p. 123.
l'. Head and neck blackish, dotted with ochre; throat white ..... *rufa* ♀, p. 121.

1. Corethrura pulchra. (Plate IX.)

Rufous-headed Rail, *Lath. Gen. Hist. B.* ix. p. 379 (1824: Sierra Leone).
Crex pulchra, *J. E. Gray, in Griffith's ed. Cuvier, An. Kingd., Aves*, pp. 410, 542, cum fig.; *id. Zool. Misc.* p. 13 (1831); *Schl. Mus. Pays-Bas*, Ralli, p. 26 (1865: Gold Coast).
Gallinula pulchra, *Swains. B. W. Afr.* p. 243 (1837).
Alectura pulchra, *Swains. B. W. Afr.* p. 243.
Rallus cinnamomeus, *Less. Rev. Zool.* 1840, p. 99 (Casamance).
Ortygometra pulchra, *G. R. Gray, List Grallæ Brit. Mus.* p. 120 (1844); *id. Hand-l. B.* iii. p. 63, no. 10468 (1871).
Ortygometra cinnamomea, *Gray, List Grallæ Brit. Mus.* p. 120 (1844: R. Gambia); *id. Hand-l. B.* iii. p. 63, n. 10471 (1871).
Corethrura pulchra, *Gray, Gen. B.* iii. p. 595 (1846); *Hartl. Orn.*

West-Afr. p. 241 (1857: Ashantee, Aguapim, Gaboon, Cape Lopez); *Büttik. Notes Leyd. Mus.* x. p. 102 (1888: Liberia), xi. pp. 128, 137 (1889); *Sharpe, in Jameson's 'Rear Column,'* p. 411 (1890: Aruwhimi River).

Corethrura cinnamomea, *Hartl. Orn. West-Afr.* p. 242 (1857); *Sharpe, Journ. Linn. Soc., Zool.* xvii. p. 441 (1884: Niam-niam); *Shelley, P. Z. S.* 1888, p. 49 (Tingasi).

Corethrura dimidiata, pt., *Bp. C. R.* xliii. p. 598 (1856).

Adult male. General colour above black, with ovate spots of white; the wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish brown, with very few spots of white, the primaries with a single spot near the end of the outer web, the secondaries more spotted, and the innermost ones showing twin-spots like the feathers of the back; lower back and rump rather browner, and spotted with white; upper tail-coverts and tail deep chestnut; head all round, neck and mantle, throat and breast bright chestnut; rest of under surface of body black, spotted with white, less distinctly on the thighs and flanks; under wing-coverts dusky blackish, with white edges to the feathers, and a few white spots; quills dusky blackish below; "bill greyish green; feet reddish brown; iris red" (*J. Büttikofer*). Total length 5·5 inches, culmen 0·65, wing 3·15, tail 1·6, tarsus 1·1, middle toe and claw 1·15.

Adult female. General colour above black, transversely barred with narrow lines of ochreous buff; all the wing-coverts and innermost secondaries black barred with ochre like the back; bastard-wing, primary-coverts, and quills dusky blackish, with a few ochreous spots on the outer web; upper tail-coverts and tail dark chestnut, barred across with black; head and neck all round, mantle and sides of neck, throat and breast, rich chestnut; remainder of under surface dusky blackish, barred across with dull ochre; the sides of the body black, with ochreous bars; under wing-coverts dusky blackish, with obsolete ochreous margins; quills below uniform dusky blackish. Total length 7 inches, culmen 0·6, wing 3·1, tail 1·75, tarsus 1·2, middle toe and claw 1·15.

Young. Differs from the adult female in being browner and in having the head and neck reddish brown, with a few dusky bars; throat whitish; the breast dull reddish brown, with dusky bars; sides of the body barred with rufous and black as strongly as in the adult female.

Hab. West Africa, from Senegambia to Gaboon and the Upper Congo, east to the Monbuttu Country.

a. [♂] ad. sk.	West Africa.	Old Coll. (Type of species.)
b–e. [♀] ad. sk.	West Africa.	Purchased.
f. Juv. sk.	Senegambia.	Governor Rendall [P.].
g. [♀] ad. sk.	Fantee.	Sharpe Coll.
h, *i*. [♂] ad.; *k*. [♀] ad. sk.	Fantee (*H. T. Ussher*).	Shelley Coll.
l, *m*. [♂] ad. sk.	Wasa, March, July (*Blissett*).	Shelley Coll.

n. [♀] ad. sk.	N'doruma, Niam-niam Country, Nov.	F. Bohndorff [C.].
o. ♀ ad. sk.	Tingasi, Equatorial Africa, July.	Emin Pasha [P.].

2. Corethrura insularis.

Corethrura insularis, *Sharpe, P. Z. S.* 1870, p. 400, 1871, pp. 31, 315, pl. 32; *Hartl. Vög. Madag.* p. 343 (1877); *Milne-Edwards & Grandid. Hist. Nat. Madag., Ois.* p. 575, pl. ccxxx. *a.* fig. 5, pl. ccxxxvi.

Ortygometra insularis, *Gray, Hand-l. B.* iii. p. 63, no. 10472 (1871).

Adult male. Head, throat, and breast rich chestnut; sides of neck black, margined with white on each side of the feathers, producing a streaked appearance; centre of the back and scapulars black, streaked like the sides of the neck, but with yellowish margins to the feathers instead of white; wing-coverts black; all the feathers margined with whitish; quills brownish black, irregularly varied with yellowish on the outer primaries; secondaries deep black, irregularly streaked and spotted with rufous white; tail deep chestnut; abdomen black, longitudinally streaked with white, the lower abdomen and vent brownish; under tail-coverts chestnut, like the tail; bill black; feet yellowish brown. Total length 6·2 inches, culmen 0·5, wing 2·8, tail 1·9, tarsus 0·75, middle toe 1·15.

Adult female. Above black, streaked with pale rufous; scapulars and wing-coverts as well as lower back banded and irregularly mottled with rufous; quills uniform brown, the secondaries vermiculated with rufous; tail dark chestnut, with blackish bands; lores pale ochraceous; cheeks ochraceous, spotted with black; entire throat ochraceous, without any spots; breast reddish ochre, spotted with black dots; rest of under surface black, crossed with bars of pale ochraceous. Total length 6·5 inches, culmen 0·5, wing 2·85.

Hab. Madagascar.

a, b. ♂ ♀ ad. sk.	Nossi Vola, Madagascar (*A. Crossley*).	Shelley Coll. (Types of species.)
c, d. ♂ ♀ ad. sk.	Ampasmahave, Sept. (*Crossley*).	Shelley Coll.
e, f. ♂ ♀ ad. sk.	Ankafana Forest, March (*W. Deans Cowan*).	Shelley Coll.
g. ♂ ad. sk.	Madagascar, Feb.	Salvin-Godman Coll.
h. ♀ ad. sk.	Madagascar.	Seebohm Coll.
i, k. ♂ ♀ ad. sk.	Madagascar.	Mr. Crossley [C.].

3. Corethrura lineata.

Alecthelia lineata, *Swains. An. in Menag.* p. 339 (1837); *id. Classif. B.* ii. p. 358 (1837).

Gallinula jardinii, *Smith, Illustr. Zool. S. Afr., Aves,* pl. xxi. (1839).

Alechthelia jardinii, *Smith, Ill. Zool. S. Afr.* text to pl. xxi. (1839).

Corethrura ruficollis, pt., *Gray, Gen. B.* iii. p. 595 (1846).

Corethrura jardinii, *Reichenb. Handb., Fulicariæ,* tab. cxxv. fig. 1224 (1851); *Bp. C. R.* xliii. p. 599 (1856).

Crex jardinii, *Schl. Mus. Pays-Bas,* Ralli, p. 27 (1856).

Corethrura ruficollis (*nec Gray*), *Layard, B. S. Afr.* p. 339 (1867); *Layard, Ibis*, 1869, p. 377; *Sharpe, ed. Layard's B. S. Afr.* p. 616 (1884).
Ortygometra jardinii, *Gray, Hand-l. B.* iii. p. 63, no. 10470 (1871).

Adult male. General colour above black, numerously streaked with whitish, some of the streaks tinged with fulvous, especially on the rump; wing-coverts like the back and similarly streaked; the greater series, however, uniform sepia-brown like the bastard-wing, primary-coverts, and quills; the bastard-wing edged with white externally, and the outer primary also, the second primary with faintly indicated fulvous spots on the outer web; upper tail-coverts and tail chestnut; crown of head and neck, as well as the sides of face and cheeks, bright chestnut; throat white, with a slight rufous tinge; remainder of under surface, from the lower throat downwards, black, streaked with white, rather more broadly than the upper surface; under tail-coverts chestnut; under wing-coverts uniform dusky brown, excepting for a few obsolete whitish margins. Total length 5 inches, culmen 0·5, wing 2·85, tail 1·45, tarsus 0·7, middle toe and claw 0·9.

Adult female. General colour above black, numerously barred with sandy buff; the head and neck streaked with sandy buff, more broadly on the latter; wing-coverts like the back, and barred across with sandy buff; bastard-wing, primary-coverts, and primaries nearly uniform sepia-brown, with very few buff spots on the outer webs, the bastard-wing feathers and the first primary white along the outer web; inner secondaries barred and mottled like the back; tail-feathers chestnut, barred with black; lores whitish; sides of face and sides of neck sandy brown, minutely spotted with black; throat and under surface of body white, with black streaks on the lower throat, fore neck, and chest; sides of body numerously banded across with black and shaded with brown; under tail-coverts banded black and rufous. Total length 5·5 inches, culmen 0·55, wing 2·8, tail 1·7, tarsus 0·6, middle toe and claw 0·85.

Hab. S. Africa, from the Knysna to Natal.

a. ♂ ad. sk.	Kingwilliamstown.	Major Trevelyan [P.].
b. ♀ ad. sk.	Pinetown, Natal, June 14 (*T. L. Ayres*).	Shelley Coll.
c. ♀ ad. sk.	Natal.	Dr. Gueinzius [C.].

4. Corethrura watersi.

Zapornia watersi, *Bartlett, P. Z. S.* 1879, p. 772, pl. lxiii.
Ortygometra watersi, *Milne-Edwards & Grandid. Hist. Nat. Madag., Ois.* ii. p. 577, pl. ccxxx. B. fig. 4, pl. ccxxxiv.

Adult male. General colour above dark chocolate-brown with an olive shade, and with black centres to the feathers, not very distinctly indicated; wing-coverts like the back and with the same black centres; bastard-wing, primary-coverts, and quills uniform

dark brown; the inner secondaries black, with chocolate-brown edges; upper tail-coverts chestnut, tipped with black; tail chestnut; crown of head and hind neck, sides of face, lower throat and breast vinous chestnut; throat isabelline, washed with vinous chestnut, shading off into the latter; lower breast, abdomen, thighs, sides of body, and flanks ashy brown, a little darker on the latter; under tail-coverts chestnut with black tips; under wing-coverts uniform brown. Total length 5·5 inches, culmen 0·65, wing 2·9, tail 1·7, tarsus 0·95, middle toe and claw 1·2.

Adult female. Different from the male. General colour above chocolate-brown, with a few white dots, the mantle and upper back rather darker brown than the crown and lower back; wing-coverts uniform chocolate-brown, with a few white dots on the greater series; bastard-wing, primary-coverts, and quills uniform sepia-brown, with a few white spots and bars on the secondaries, more distinct on the inner secondaries, which are blackish in the centre with olive-brown margins; upper tail-coverts black, crossed with whitish bars, and with chestnut bars near the base; the tail-feathers black, with narrow whitish and broad chestnut bars; crown of head uniform dark brown; eyebrow and sides of face isabelline brown, speckled with darker brown; the loral region dark brown; cheeks, throat, and centre of breast isabelline; sides of neck and entire sides of body dark brown, paler and more ashy brown on the abdomen; under tail-coverts black, narrowly barred with white and broadly with chestnut; under wing-coverts uniform brown. Total length 5 inches, culmen 0·6, wing 2·7, tail 1·7, tarsus 0·9.

Hab. Madagascar.

a. ♂ ad. sk.	Madagascar.	Seebohm Coll.
b, c. ♂ ♀ ad. sk.	Betsileo, Madagascar, Dec.	Rev. W. Deans Cowan [C.].

5. Corethrura elegans.

Gallinula elegans, *Smith, Ill. Zool. S. Afr., Aves,* pl. xxii. (1839).

Corethrura pulchra, pt., *Gray, Gen. B.* iii. p. 595 (1846); *Layard, B. S. Afr.* p. 339 (1867: Knysna); *Gray, Hand-l. B.* iii. p. 63, no. 10468 (1871, pt.); *Sharpe, ed. Layard's B. S. Afr.* p. 615 (1884).

Corethrura elegans, *Reichenb. Handb., Fulicariæ,* tab. cxxv. fig. 1221 (1851); *Finsch. J. f. O.* 1867, p. 249 (Durban); *Bp. C. R.* xliii. p. 599 (1856).

Adult male. General colour above black, numerously and thickly mottled with ovate spots and bars of ochre; the wing-coverts like the back, the greater series distinctly barred rather than spotted; bastard-wing, primary-coverts, and quills dusky blackish, freckled with minute spots of pale ochre along the outer edge; upper tail-coverts and tail cinnamon-rufous, banded with black; head and neck all round bright cinnamon-rufous as well as the throat and breast; remainder of under surface black, numerously spotted and barred with white, the bars on the lower flanks being pale ochre;

sides of upper breast spotted with ochre like the back; under tail-coverts reddish buff, barred with black; under wing-coverts blackish, and axillaries blackish, narrowly barred with whitish; quills dusky below. Total length 6 inches, culmen 0·6, wing 3·4, tail 1·6, tarsus 1, middle toe and claw 1·2.

Adult female. General colour above warm brown, numerously spotted with ochre, each of the ochre spots bordered with black above and below; wing-coverts like the back, and with similar ochreous spots; bastard-wing and primary-coverts uniform brown, with very tiny ochreous spots on the outer web; quills dark brown, minutely spotted with ochre on the outer web, the inner secondaries exactly like the back; the upper tail-coverts and tail reddish brown barred across with black; head brown, minutely dotted with ochre and narrowly barred across with black; lores, eyebrow, and sides of face light sandy buff, numerously dotted with brown; ear-coverts with a dark brown line along the upper margin; throat white, with a few dusky bars; lower throat, fore neck, and chest, as well as the sides of the body, brown, with lighter buff cross markings and black bars; abdomen white, with blackish cross bars; under tail-coverts reddish brown, with black bars and spots of lighter buff; under wing-coverts dark sepia-brown, with a few whitish edges to the feathers: "bill reddish brown, the lower mandible with a yellowish-white line along the under edge of each ramus; legs and toes reddish brown" (*Sir A. Smith*). Total length 5·7 inches, culmen 0·6, wing 3·6, tail 1·5, tarsus 1, middle toe and claw 1·2.

Hab. South Africa, from the Knysna district to Natal.

a. ♀ ad. st.	Cape Colony.	M. J. Verreaux [C.].
b. ♂ ad. sk.	Kingwilliamstown.	Major Trevelyan [P.].
c, *d*. ♂ ad.; *e*. ♀ ad. sk.	Natal.	Sharpe Coll.
f, *g*. ♂ ♀ ad. sk.	Natal.	Shelley Coll.
h. ♂ ad. sk.	Durban, Natal, Aug. 29 (*T. L. Ayres*).	Sharpe Coll.
i, *k*. ♂ ad.; *l*. ♀ ad. sk.	Durban, Feb. (*Gordge*).	Shelley Coll.

Subsp. *a*. **Corethrura reichenovi.**

Corethrura elegans (*nec Smith*), *Reichen. J. f. O.* 1892, p. 178 (Cameroons).

Adult male. Similar to *C. elegans*, but everywhere much darker in colour, the rufous of the head and breast being deep chestnut instead of orange-rufous, this chestnut colour extending over the whole throat to the base of the bill.

Hab. Cameroons, W. Africa.

6. Corethrura rufa.

Rallus rufus, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 564 (1819).
Porzana dimidiata, *Temm.* (ubi?), *Less. Traité d'Orn.* p. 537 (1831).
Crex ruficollis, *J. E. Gray* (*nec V.*), *Zool. Misc.* p. 13 (1831).

Gallinula dimidiata, *Smith, Ill. Zool. S. Afr., Aves,* pl. 20 (1839: Cape Town).
Ortygometra ruficollis, *Gray, List Grallæ Brit. Mus.* p. 120 (1844).
Ortygometra dimidiata, *Gray, List Grallæ Brit. Mus.* p. 120 (1844: spec. exam.).
Corethrura dimidiata, *Gray, Gen. B.* iii. p. 595 (1846); *Reichenb. Handb., Fulicariæ,* Taf. cxxv. figs. 1223, 1224 (1851); *Layard, B. S. Afr.* p. 339 (1867: Cape Colony); *Bocage, Orn. Angola,* p. 482 (1881: Caconda); *Sharpe, ed. Layard's B. S. Afr.* p. 615 (1884).
Corethrura ruficollis, *Bp. C. R.* xliii. p. 599 (1856); *Gurney, Ibis,* 1859, p. 249 (Natal), 1868, p. 261 (Natal; Transvaal).
Crex dimidiata, *Schl. Mus. Pays-Bas,* Ralli, p. 27 (1865).
Alecthelia dimidiata, *Gurney in Anderss. B. Dam. Ld.* p. 320 (1872).

Adult male. General colour above black, longitudinally streaked with white, which takes the form of small spots upon the secondaries, lower back and rump, and even on the upper tail-coverts and tail; bastard-wing and primary-coverts blackish brown, spotted with white, the former edged with white like the first primary; quills uniform blackish; head and neck all round with the throat and chest rich vinous chestnut; the breast white, streaked and barred with black; sides of the body and flanks black, streaked with white, like the upper surface, the black markings becoming less pronounced on the lower flanks and under tail-coverts, which have only a few spots of white; under wing-coverts black, with a few small spots of white: "bill reddish brown; lower mandible faintly edged above and below with yellowish brown" (*Sir A. Smith*); "legs and toes yellowish brown" (*C. J. Andersson*). Total length 5·7 inches, culmen 0·6, wing 3, tail 1·6, tarsus 0·9, middle toe and claw 1·3.

Adult female. Blackish, mottled with ochre like the female of other species of the genus, but easily distinguished from all others by its black tail: "bill, feet, and iris dusky brown" (*T. Ayres*). Total length 5·7 inches, culmen 0·55, wing 3, tail 1·7, tarsus 0·9, middle toe and claw 1·2.

Young birds are almost entirely black, very minutely spotted with white; the tail entirely black. Underneath, the throat and centre of breast dusky white; remainder of under surface sooty black.

Hab. South Africa, from the Cape Colony to Natal and the Transvaal, Damara-land, and Benguela.

a. ♀ ad. st.	South Africa.	Purchased.
b. Ad. sk.	South Africa.	Old Coll. (Type of *C. ruficollis.*)
c, d. ♂ ♀ ad. sk.	South Africa.	Sir A. Smith [C.].
e. ♂ ad. sk.	Port Natal, Sept. 25.	Tweeddale Coll.
f. ♂ juv. sk.	Potchefstroom, March 20 (*T. Ayres*).	Gurney Coll.
g. ♀ ad. sk.	Potchefstroom, July 10 (*T. Ayres*).	Sharpe Coll.

7. Corethrura lugens.

Crex lugens, *Boehm, J. f. O.* 1884, pp. 176, 244 (Ugalla), 1885, p. 61 ; *Matschie, J. f. O.* 1887, p. 139.
Corethrura lugens, *Matschie, J. f. O.* 1887, p. 145 (Urua ; Likulwe).

Adult male. Very like the male of *C. rufa* (Vieill.), but differs in the white chin, lighter brownish-red colour of the breast, the uniform wing-coverts, and the unspotted tail, the feathers having only a whitish edging (*Matschie, l. c.*).

Hab. Interior of Africa, near Lake Tanganyika.

8. Corethrura bonapartii.

Corethrura bonapartii, *Bp. C. R.* xliii. p. 599 (1856; ? *ex Hartl. MSS.*); *Hartl. Orn. West-Afr.* p. 242 (1857 : Gaboon) ; *Oust. N. Arch. Mus.* (2) ii. *Bull.* p. 142 (1879).
Ortygometra bonapartii, *Gray, Hand-l. B.* iii. p. 64, no. 10473 (1871).

Adult male. Similar to *C. lineata*, but easily distinguished by having the tail black, spotted with white, and having the rufous colour of the throat extending to the fore neck and breast. Total length 4·8 inches, culmen 0·5, wing 2·8, tail 1·5, tarsus 0·75, middle toe and claw 1·05.

Hab. West Africa.

a. Ad. sk. Gaboon. M. Verreaux [C.].

30. RALLICULA.

	Type.
Rallicula, *Schl. N. T. D.* iv. p. 55 (1871).....	R. rubra.
Corethruropsis, *Salvad. Ann. Mus. Genov.* vii. p. 975 (1875).....	R. leucospila.

Range. Confined to New Guinea.

Key to the Species.

a. Back and wings chestnut, with black shafts or blackish centres to the feathers: no white or fulvous spots.....	*rubra*, p. 123.
b. Back and wings black.	
a'. Back with white marginal streaks to the feathers.....	*leucospila* ♂, p. 124.
b'. Back with white spots.....	*leucospila* ♀, p. 124.
c'. Back uniform, without any white or fulvous spots	*forbesi* ♂, p. 124.
d'. Back with ochraceous spots.....	*forbesi* ♀, p. 124.

1. Rallicula rubra.

Rallicula rubra, *Schl. N. T. D.* iv. p. 55 (1871) ; *Rosenb. Reist. naar Geelvinkb.* p. 144 (1875) ; *Salvad. Ann. Mus. Genov.* xii. p. 346

(1878); *Rosenb. Malay. Arch.* p. 596 (1878); *Salvad. Ann. Mus. Genov.* xviii. p. 320 (1882); *id. Orn. Papuasia*, iii. p. 270 (1882); *Guillem. P. Z. S.* 1885, p. 664, pl. xxxix.
Rallina rubra, *Rosenb. Malay. Arch.* p. 563 (1878–79).

Adult male. General colour above uniform chestnut; wing-coverts and inner secondaries chestnut like the back, but with the black shafts more distinctly indicated: bastard-wing black, with white bars; primary-coverts and quills blackish, barred with white on the inner web; tail-feathers uniform chestnut; crown of head, sides of face, and under surface of body uniform chestnut, rather brighter than the upper surface. Total length 8 inches, culmen 1·1, wing 3·8, tail 3·55, tarsus 1·55, middle toe and claw 1·5. (*Mus. Rothschild.*)
Hab. Arfak Mountains, N.W. New Guinea.

2. Rallicula leucospila.

Corethrura (?) leucospila, *Salvad. Ann. Mus. Genov.* vii. p. 975 (1875).
Rallicula leucospila, *Salvad. Ann. Mus. Genov.* xii. p. 346 (1878), xviii. p. 320 (1882); *id. Orn. Papuasia*, iii. p. 270 (1882).

Adult male. Head, fore part of neck, and chest chestnut-red; the crown and the hind neck blackish; the back, the scapulars, and the upper wing-coverts black, marked with longitudinal white streaks on each web of the feathers; rump, upper tail-coverts, abdomen, under tail-coverts, and thighs reddish brown, barred across with black; quills dusky black, marked with whitish transverse bands on the inner web; under wing-coverts black, banded across with white; tail chestnut with a few black bars, especially towards the tip and on the outer tail-feathers. Total length 8·8 inches, culmen 0·95, wing 4, tail 2·65, tarsus 1·5. (*Salvadori.*)
Adult female. Similar to the male, but differing in having rounded white spots on the wing-coverts and scapulars, those on the wings being reddish white; the black transverse bars on the tail more numerous than in the male. (*Salvadori.*)
Hab. Arfak Mountains, N.W. New Guinea.

3. Rallicula forbesi.

Rallicula rubra (*nec Schl.*), *Sharpe, Nature*, xxxiv. p. 340 (1886).
Rallicula forbesi, *Sharpe, in Gould's B. New Guin.* v. pl. 70 (1887); *Salvad. Agg. Orn. Pap.* iii. p. 197 (1891).

Adult male (type of species). General colour above black, including the wings, the quills having whitish bars on the inner webs; upper tail-coverts and tail deep chestnut barred with black, less regularly on the rectrices; head all round, neck, and mantle, as well as the under surface of the body, deep rich chestnut; the hinder crown somewhat blackish; lower abdomen, thighs, and lower flanks

dusky blackish with rufous bars; under tail-coverts chestnut with black bars; under wing-coverts black, barred with white like the quill-lining. Total length 8·7 inches, culmen 1·1, wing 4·3, tail 2·4, tarsus 1·5.

Adult female. Differs from the male in having ochraceous-buff spots on the back and wings. Total length 8 inches, culmen 1·05, wing 4·6, tail 2·3, tarsus 1·45.

Hab. South-eastern New Guinea.

a, b. Ad. sk.	Owen Stanley Range.	H. O. Forbes, Esq. [C.]. (Types of species.)
c. Ad. sk	Astrolabe Range.	A. Goldie, Esq. [C.].

31. THYRORHINA.

Type.

Thyrorhina, *Scl. & Salv. P. Z. S.* 1868, p. 458..... T. schomburgki.

Range. The same as that of the single species of the genus.

1. Thyrorhina schomburgki.

Crex schomburgki, *Cab. in Schomb. Reis. Guian.* iii. p. 760 (1848); *Scl. & Salv. P. Z. S.* 1868, p. 169 (Caripè).

Corethrura schomburgki, *Licht. Nomencl. Av. Mus. Berol.* p. 96 (1854).

Micropygia schomburgki, *Bp. C. R.* xliii. p. 599 (1846).

Thyrorhina schomburgki, *Scl. & Salv. P. Z. S.* 1868, p. 458; *Pelz. Orn. Bras.* p. 317 (Paranahiba River), p. 459 (Bahia); *Gray, Hand-l. B.* iii. p. 63, no. 10465 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873).

Adult male. General colour above brown, the upper surface thickly streaked with ovate spots of white, each spot bordered with a line of black; the white spots not so distinct and smaller on the lower back, rump, and upper tail-coverts; wing-coverts tawny rufous or light bay, with a few large white black-edged spots at the end of each feather; bastard-wing also rufous, with a tiny terminal white spot: primary-coverts and quills sepia-brown, the primaries externally isabelline; the inner secondaries brown like the back, with a central line of black which encloses a small terminal white spot; tail-feathers brown, with an external tinge of tawny buff and a small white spot at the end of the feather, preceded by a larger subterminal spot of black; crown of head bright chestnut; the occiput, nape, hind neck, and sides of neck like the back, but the spots very much smaller; sides of face and under surface of body bright orange-buff, the lores a little paler, the chin and centre of breast and abdomen white; the sides of the upper breast decorated with white oval spots in the same manner as the back; under wing-coverts and axillaries tawny buff, the greater series whitish, the lower primary-coverts ashy like the quill-lining. Total length

5 inches, culmen 0·5, wing 2·95, tail 1·1, tarsus 0·75, middle toe and claw 0·8.

Hab. British Guiana and Venezuela to Brazil.

a, b. ♂ ♀ ad. sk.	Roraima, British Guiana, Dec. (*H. Whitely*).	Salvin-Godman Coll.
c. ♀ ad. sk.	Merumè Mountains, B. Guiana, July 27 (*H. W.*).	Salvin-Godman Coll.
d. Ad. sk.	Venezuela (*Spence*).	Salvin-Godman Coll.
e. ♂ ad. sk.	Caripè, Venezuela (*A. Goering*).	Salvin-Godman Coll.
f. Ad. ♂ st.	S. America.	Purchased.

32. ORTYGOPS.

	Type.
Coturnicops, *Bp. C. R.* xliii. p. 599 (1856)	O. noveboracensis.
Ortygops (nom. emend.), *Heine, in Heine & Reichenow, Nomencl. Mus. Hein.* p. 320 (1890).	

Range. North America generally; S.E. Brazil; S.E. Africa; N. China to E. Siberia and Japan.

Key to the Species.

a. Tail blackish or with white spots or bars.
  a'. Feathers of upper surface margined with white, but not spotted with the latter.
    a''. Larger: orange-rufous on the throat and sides of breast; no dusky bars on throat. *noveboracensis*, p. 126.
    b''. Smaller: throat and sides of breast rufescent brown, barred with dusky brown .. *exquisita*, p. 128.
  b'. Feathers of upper surface spotted with white. *notata*, p. 128.
b. Tail chestnut, banded with black; hind neck rufescent, contrasting with the back..... *ayresi*, p. 129.

1. Ortygops noveboracensis.

Yellow-breasted Gallinule, *Penn. Arctic Zool.* ii. p. 491 (1785); *Lath. Gen. Syn.* iii. pt. 1, p. 262 (1786).
Fulica noveboracensis, *Gm. Syst. Nat.* i. p. 701 (1788).
Gallinula noveboracensis, *Lath. Ind. Orn.* ii. p. 771 (1790).
Perdix hudsonica, *Lath. t. c.* p. 655 (1790).
Rallus ruficollis, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 556 (1819); *id. Gal. Ois.* ii. p. 168, pl. 266 (1825).
Ortygometra noveboracensis, *Steph. Gen. Zool.* xii. p. 222 (1824); *Bp. Comp. List B. Eur. & N. Amer.* p. 53 (1838); *Audub. B. Amer.* v. p. 152, pl. 307 (1842); *Giraud, B. Long Isl.* p. 204 (1844); *Gray, Gen. B.* iii. p. 594 (1846).
Rallus noveboracensis, *Bp. Specch. Comp.* p. 212 (1827); *id. Amer. Orn.* iv. p. 126, pl. 27. fig. 2 (1832); *Audub. B. Amer.* pl. 329; *Swains. & Rich. Faun. Bor.-Amer., Birds*, p. 402 (1831); *Nutt. Orn. Man.* ii. p. 215 (1834); *Audub. Orn. Biogr.* iv. p. 251 (1838).
Coturnicops noveboracensis, *Bp. Ann. Sci. Nat.* i. p. 46 (1854); *id.*

C. R. xliii. p. 599 (1856); *Sharpe, ed. Layard's B. S. Afr.* p. 617 (1884).

Porzana noveboracensis, *Baird, Cass. & Lawr. B. N. Amer.* p. 750 (1858); *Dresser, Ibis*, 1866, p. 40 (San Antonio, Texas); *Lawr. Ann. Lyc. N. Y.* viii. p. 295 (1866: New Jersey); *Coues, Proc. Bost. Soc. N. H.* xii. p. 124 (1868: S. Carolina); *Scl. & Salv. P. Z. S.* 1868, p. 457; *Turnb. B. East Pennsylv.* p. 33 (1869); *Allen, Bull. Mus. Comp. Zool.* ii. p. 357 (1871); *id. Amer. Nat.* 1870, p. 639; *Coues, Key N. Amer. B.* p. 274 (1872); *Coues, B. N.-West*, p. 539 (1874); *Mayn. B. East. N. Amer.* p. 431 (1879); *Ridgw. Proc. U.S. Nat. Mus.* iii. p. 202 (1880); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 375 (1884); *Clark, Auk*, i. p. 397 (1884: D. Columbia); *Scott, Auk*, ii. p. 110 (1885; Ottawa); *Lawr. t. c.* p. 274 (Long Isl.); *Goss, t. c.* p. 385, iii. p. 113 (1886: Kansas, breeding); *A. O. U. Check-l. N. Amer. B.* p. 142 (1886); *Ridgw. Man. N. Amer. B.* p. 140 (1887); *Bryant, P. & S.* xxvi. p. 426 (1887); *Towns. Proc. U.S. Nat. Mus.* x. pp. 163, 197, 234 (1887: N. California); *Beckh. t. c.* p. 637 (Bexar Co., Texas), p. 651 (San Antonio); *Saunders, Auk*, iv. p. 247 (1887: Ontario); *Smith & Palmer, Auk*, v. p. 147 (1888); *Dutcher, t. c.* p. 177 (Long Isl.); *Merrill, t. c.* p. 319 (Connecticut); *Austin, F. & S.* xxx. p. 205 (1888: Conn., March); *Cory, B. West Ind.* p. 257 (1889); *Thomps. Proc. U.S. Nat. Mus.* xiii. p. 495 (1891: Manitoba); *Loomis, Auk*, viii. p. 55 (1891); *Cory, Cat. West Ind. B.* pp. 91, 137 (1892).

Aramides noveboracensis, *Gray, Hand-l. B.* iii. p. 61, no. 10448 (1871).

Ortygops noveboracensis, *Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890).

Adult. General colour above light tawny, the feathers variegated with broad black centres and bars and fringes of white, these white edgings almost obsolete on the hind neck; wing-coverts browner than the back, but barred and fringed with white in the same manner; bastard-wing pale sepia-brown, slightly freckled with white dots at the end; primary-coverts darker brown than the quills, which are also uniform brown; the first primary edged with white, the inner primaries white on the inner webs; the outer secondaries entirely white, the innermost ones exactly like the back; tail-feathers blackish, edged with tawny buff and crossed with narrow white lines; crown of head darker brown than the back, with a few tiny white dots, but scarcely any trace of tawny margins; lores and feathers below the eye dusky blackish, extending on to the ear-coverts; sides of crown and sides of face tawny buff, with a few white dots, which are also on the eyebrow, which is very distinct; throat white, as also the lower breast and abdomen; the lower throat, fore neck, and chest dull tawny buff, varied with a few white fringes to the feathers, preceded by a blackish subterminal spot or bar; flanks also tawny buff, but much more distinctly barred with black and white; thighs brown externally, buff internally; under tail-coverts vinous, with small white spots and blackish subterminal bars; under wing-coverts and axillaries pure white; quills ashy below: "bill greenish black, with the base dull yellowish orange; feet and claws light flesh-colour; iris hazel"

(*J. J. Audubon*). Total length 5·5 inches, culmen 0·6, wing 3·5, tail 1·4, tarsus 0·9, middle toe and claw 1·25.

Hab. North America generally, visiting Cuba and the Bermudas accidentally.

a. Ad. st.	North America.	Purchased.
b. Ad. sk.	North America.	Salvin-Godman Coll.
c. Ad. sk.	Illinois (*E. W. Nelson*: *Henshaw Coll.*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Milford, Conn., Oct. 14 (*G. B. Grinnell*: *Henshaw Coll.*).	Salvin-Godman Coll.
e. ♂ juv. sk.	Seabrook, New Hampshire, Oct. 15 (*H. W. Henshaw*).	Salvin-Godman Coll.

2. Ortygops exquisita.

Crex erythrothorax, *Dyb. & Parv. J. f. O.* 1868, p. 338 (*nec Temm. & Schl.*).
Ortygometra, n. sp., *Prjev. Putesch. Ussur.* no. 143 (1870, *teste Stejneger*).
Porzana erythrothorax (*nec T. & S.*), *Tacz. J. f. O.* 1873, p. 107 (Dauuria).
Porzana exquisita, *Swinh. Ann. & Mag. Nat. Hist.* (4) xii. p. 376 (1873: Chefoo); *id. Ibis*, 1876, p. 336 (Hakodadi); *Blakist. & Pryer, Ibis*, 1878, p. 225 (Yezo); *Blakist. Amend. List B. Japan*, p. 13 (1884); *Bogd. Consp. Av. Imp. Ross.* p. 57 (1884); *Styan, Ibis*, 1891, pp. 329, 501 (Lower Yangtze).
Porzana undulata, *Tacz. J. f. O.* 1874, p. 333 (Ussuri); *id. Bull. Soc. Zool. France*, i. p. 259 (1876); *Stejn. Proc. U.S. Nat. Mus.* ix. p. 401 (1886).
Porzana (Coturnicops) exquisita, *Swinh. Ibis*, 1875, p. 135, pl. iii.
Coturnicops exquisita, *Gurney, Ibis*, 1877, p. 353; *Sharpe, ed. Layard's B. S. Afr.* p. 617 (1884).
Crex undulata, *Seeb. B. Japan. Emp.* p. 358 (1890).

Adult female (type of *Porzana exquisita*). Similar to *O. noveboracensis*, but smaller and darker; with the same white edgings to the feathers of the upper surface and the wings; throat whitish; the lower throat, fore neck, sides of breast, and flanks reddish brown, barred with dusky blackish, the feathers edged with white; breast and abdomen white: "bill deep brown, greenish yellow on lower mandible, base, and rictus; legs and feet light flesh-brown, dark on joints and claws; iris brown" (*R. Swinhoe*). Total length 5·3 inches, culmen 0·55, wing 3, tail 1·05, tarsus 0·8, middle toe and claw 0·95.

Hab. Eastern Siberia and Japan to North-eastern China.

a. ♀ ad. sk.	Chefoo, May (*R. Swinhoe*).	Seebohm Coll. (Type of species.)

3. Ortygops notata.

Zapornia notata, *Gould, Voy. 'Beagle,' Birds*, p. 132, tab. 48 (1841).
Ortygometra notata, *Gray, Gen. B.* iii. p. 594 (1846).
Porzana notata, *Scl. & Salv. P. Z. S.* 1868, p. 456; *id. Nomencl. Av.*

Neotr. p. 140 (1873); *Scl. P. Z. S.* 1876, p. 255 (Uruguay); *id.* & *Hudson, Argent. Orn.* ii. p. 155 (1889).
Aramides notata, *Gray, Hand-l. B.* iii. p. 61, no. 10445 (1871).

Adult (type of species). General colour above chocolate-brown, mottled with black centres to the feathers, which are spotted with white; wing-coverts like the back, but the white spots sometimes in the form of bars, which is also the case on the inner secondaries, lower back, and rump; bastard-wing and primary-coverts brown, with scarcely any white spots; quills blackish brown, the middle secondaries for the most part white on the inner webs, this white patch varying in size; tail blackish brown; the upper tail-coverts with tiny white spots; crown of head and hind neck rather darker than the back, and profusely dotted with little spots of white; lores dusky brown, surmounted by a whitish streak; sides of face and cheeks blackish, varied with white spots; chin and upper throat whitish, the latter slightly mottled with dusky brown; remainder of throat, fore neck, and chest whitish, profusely mottled with dusky blackish centres to the feathers; centre of breast and abdomen whitish, with dusky cross bars; sides of body and flanks blackish, with narrow white bars and tips; under tail-coverts blackish, with pale vinous tips; under wing-coverts and axillaries white, mottled with brown bases near the edge of the wing. Total length 5·3 inches, culmen 0·45, wing 3·1, tail 2·25, tarsus 0·8, middle toe and claw 0·9.

Hab. From Uruguay south to Patagonia.

a. Ad. sk.	Rio Plata (*C. Darwin*).	Voy. H.M.S. 'Beagle.' (Type of species.)
b. Imm. sk.	At sea off Cape Santa Maria, Uruguay.	Salvin-Godman Coll. [P. Z. S. 1876, p. 255.]

4. Ortygops ayresi.

? Corethrura ruficollis (*nec T.*), *Layard, Ibis*, 1869, p. 377.
Coturnicops ayresi, *Gurney, Ibis*, 1877, p. 352, pl. 7 (Transvaal); *Sharpe, ed. Layard's B. S. Afr.* p. 616 (1884).

Adult female (type of species). General colour above dark brown, mottled with black centres to the feathers, and streaked with white on the margins, also occasionally spotted with white; scapulars like the back; wing-coverts blackish, with brown margins, the coverts not so profusely spotted with white as the back; bastard-wing blackish brown with white margins; primary-coverts and quills uniform dusky brown, the first primary white along the outer web, the middle secondaries pure white, the inner secondaries like the back; lower back and rump like the back, but less profusely spotted with white; upper tail-coverts and tail bright rufous barred with black; crown of head black, slightly varied with rufous tips to the feathers, and having a faintly indicated rufescent eyebrow; nape, hind neck, and sides of neck deep vinous, mottled with black centres to the feathers; lores, sides of face, ear-coverts, and

cheeks dusky blackish; under surface of body dull white, tinged with reddish on the fore neck and sides of chest, which are also mottled with small dusky spots; sides of the breast and flanks blackish, spotted and streaked on the former with white, and obscurely barred on the latter with white; under tail-coverts chestnut, barred with black like the tail; under wing-coverts and axillaries white, slightly mottled with dusky bases: "bill pale dusky, darkest on the ridge; tarsi and feet pale dusky; iris ashy hazel" (*T. Ayres*). Total length 5·3 inches, culmen 0·5, wing 3·1, tail 1·5, tarsus 0·8.

Two specimens were obtained by Mr. Ayres, and the one described was presented to the Museum by Mr. Gurney. The other specimen I have not seen, but it is apparently a more adult bird than the one the Museum possesses, as it has a rufescent chest.

Hab. South-eastern Africa.

a. ♀ ad. sk.	Potchefstroom, Transvaal, Oct. 4.	Sharpe Coll.	(One of the types of species.)
b. Imm. sk.	Kingwilliamstown, Aug. (*E. O. Anstey*).	Major Trevelyan [P.].	

33. POLIOLIMNAS.

	Type.
Poliolimnas, *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxviii (Jan. 1893)	P. cinereus.

Range. The same as that of the single species.

1. Poliolimnas cinereus.

Sandwich Rail, var. (ex ins. Tanna), *Lath. Gen. Syn.* iii. p. 235.
Rallus sandwichensis, var., *Gm. S. N.* ii. p. 717 (1788).
Porphyrio cinereus, *Vieill.* (*nec* Rallus cinereus, *Vieill.*) *Nouv. Dict.* xxviii. p. 29 (1819); *Gray, Gen. B.* iii. p. 598 (1845); *Pucher. Rev. et Mag. de Zool.* 1851, p. 563.
Rallus quadristrigatus, *Horsf. Trans. Linn. Soc.* xiii. p. 196 (1821).
Gallinula leucosoma, *Sw. Anim. in Menag.* p. 348 (1837).
Rallus tannensis, *Forst. Descr. An.* p. 275 (1844).
Crex quadristriata, *Licht. in Forst. Descr. An.* p. 275 (1844).
Ortygometra ocularis (nom. nudum), *Gray, List Gralle Brit. Mus.* p. 119 (1844: Philippines).
Zapornia sandwichensis, *Reichenb.* (*nec Gm.*) *Handb., Fulic.* Taf. cxix. figs. 1184–85 (1846).
Ortygometra leucosoma, *Gray, Gen. B.* iii. p. 594 (1846).
Corethrura quadristrigata, *Gray, tom. cit.* p. 595 (1846).
Gallinula superciliosa, *Temm.* (*nec Sw.*), *teste Gray, l. c.*
Corethrura mystacina, *Temm. teste Gray, l. c.* (1846).
Corethrura sandwichensis, *Gray, l. c.* (1846).
Corethrura tannensis, *Gray, ibid.* n. 25 (1846).
Porzana leucophrys, *Gould, P. Z. S.* 1847, p. 33; *id. B. Austr.* vi. pl. 81 (1848); *Reichenb. Vög. Neuholl.* p. 342, n. 477 (1851); *id. Handb., Fulic. Novit.* t. xlii. figs. 2469–70 (1851); *Macgill. Narr. Voy. 'Rattlesnake,'* ii. p. 358 (1852); *Gray, P. Z. S.* 1858, p. 198; *id. Cat. B. New Guin.* p. 63 (1859); *Marie, Act. Soc. Linn. Bord.* xxxvii. p. 327 (1870).
Porzana quadristrigata, *Blyth, Cat. B. Mus. As. Soc.* p. 284 (1849); *Wall. P. Z. S.* 1863, p. 487; *Ramsay, Proc. Linn. Soc. N. S. W.*

p. 194 (1876); *id. P. Z. S.* 1877, p. 345; *id. Proc. Linn. Soc. N. S. W.* iv. pp. 92, 102, no. 200 (1879); *Seeb. Ibis*, 1891, p. 191 (Sulphur Isl.; Volcano Isl.).

Gallinula mystacina, *Temm. in Mus. Paris*; *teste Pucher. Rev. et Mag. Zool.* 1851, p. 564.

Erythra leucophrys, *Bp. Compt. Rend.* xliii. p. 600 (1856).

Erythra cinerea, *Bp. t. c.* p. 600 (1856).

Erythra cinerea, var. media, *Bp. l. c.*

Erythra cinerea, var. minima, *Bp. l. c.*

Ortygometra, sp., *Gray, Cat. B. Trop. Isl.* p. 52 (1859).

Porzana (Zapornia) leucophrys, *Verr. et Des Murs, Rev. et Mag. de Zool.* 1860, p. 437.

Ortygometra superciliaris, *Finsch* (*nec Eyt.*), *Neu-Guin.* p. 181 (1865); *Rosenb. Malay. Archip.* p. 563 (1878–79).

Porzana cinerea, *Schleg. Mus. P.-B.* Galli, p. 32 (1865); *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 92 (1876); *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 260, no. 645 (1877); *Hume, Str. Feath.* vii. pp. 440, 451 (1878), viii. pp. 40, 70 (Singapore), 113 (1879); *Rosenb. Malay. Archip.* pp. 278, 324, 563 (1878–79); *Kelham, Ibis*, 1882, p. 188 (Singapore).

Erythra quadristrigata, *Gould, Handb. B. Austr.* ii. p. 343 (1865); *North, Nests & Eggs Austr. B.* pl. xvi. fig. 7 (1890).

Ortygometra leucophrys, *Finsch, Neu-Guinea*, p. 181 (1866); *Rosenb. Malay. Archip.* p. 563 (1878–79).

Ortygometra quadristrigata, *Finsch, Neu-Guinea*, p. 181 (1865); *Hartl. et Finsch, Orn. Centralpolyn.* p. 164 (1867); *iid. P. Z. S.* 1868, pp. 8, 118, 1872, p. 107; *Gray, Hand-l. B.* iii. p. 63, no. 10464 (1871); *Finsch, J. f. O.* 1872, pp. 33, 53 (Upolu); *Whitmee, Ibis*, 1875, p. 446; *Layard, P. Z. S.* 1875, p. 439, 1876, pp. 497, 505 (Samoa); *id. Ibis*, 1876, p. 393 (Ovalau, Viti Levu); *Nehrkorn, J. f. Orn.* 1879, p. 408; *E. L. & L. C. Layard, Ibis*, 1880, p. 232 (Loyalty Isl.), 1882, p. 637 (New Caledonia; breeding).

Ortygometra cinerea, *Wald. Trans. Zool. Soc.* viii. p. 94 (1872); *Salvad. Ucc. Born.* p. 339 (1874); *id. Ann. Mus. Civ. Gen.* vii. p. 677 (1875); *Finsch, Journ. Mus. Godeffr.* Heft viii. p. 38 (1875: Pelew Islands); *Tweedd. Trans. Zool. Soc.* ix. pp. 230, 251 (1875); *Brügg. Abh. naturw. Ver. Brem.* v. p. 92 (1876); *Tweedd. P. Z. S.* 1877, p. 767, 1878, pp. 114, 344, 953; *E. L. & L. C. Layard, Ibis*, 1878, p. 263 (Loyalty Isl.); *Meyer, Ibis*, 1879, p. 142 (Celebes); *D'Alb. et Salvad. Ann. Mus. Civ. Gen.* xiv. p. 129 (1879); *Salvad. ibid.* p. 667 (1879); *D'Alb. Nuova Guin.* p. 588 (1880); *Finsch, P. Z. S.* 1880, p. 577; *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 321, no. 12 (1882); *id. Orn. Papuasia etc.* iii. pp. 273–74 (1882); *W. Blasius, J. f. O.* 1883, p. 139, 1884, p. 218 (Lake Teweh and S.E. Borneo; breeding); *Kutter, t. c.* p. 225 (eggs); *id. J. f. O.* 1885, p. 353; *Blasius, Zeitschr.* iii. p. 158 (1886: Celebes); *Büttik. Notes Leyd. Mus.* ix. p. 80 (1887: Sumatra); *Steere, List B. & Mamm. Philipp.* p. 25 (1890: Guimaras, Panay, Siquijor, Leyte, Marinduque); *Sharpe, Ibis*, 1890, pp. 145, 285 (N.W. Borneo); *Meyer, t. c.* p. 424 (New Britain); *Salvad. Agg. Orn. Pap.* iii. p. 197 (1891); *Wiglesw. Abhandl. Zool. Mus. Dresden*, no. 6, p. 61 (1891).

Gallinula superciliaris, *Rosenb. Malay. Archip.* p. 278 (1878–79).

Poliolimnas cinerea, *Sharpe, Bull. Brit. Orn. Club*, no. v. p. 28 (1893).

Adult male in breeding-plumage. General colour above olive-

brown, with darker brown centres to the feathers of the back: lower back, rump, and upper tail-coverts darker brown, with olive-brown edges; wing-coverts uniform olive-brown, with lighter brown margins, the greater coverts more sandy brown on their edges; bastard-wing, primary-coverts, and quills dark brown, externally washed with lighter brown, the bastard-wing feathers externally whity brown, the first primary white along the outer web; inner secondaries dark brown, edged with sandy brown; tail-feathers brown, blackish in the centres; crown of head dark ashy grey, blackish on the forehead, the nape and hind neck more olive-brown with dusky-brown centres to the feathers, the whole overshaded with grey, which overspreads the mantle also; lores and a spot at the base of the cheeks black, with a white supraloral streak; ear-coverts, cheeks, and sides of neck dark ashy grey, traversed by a band of white from the anterior portion of the cheeks, passing below the eye to above the ear-coverts; throat and abdomen pure white; the lower throat, fore neck, breast, and sides of body ashy grey, becoming browner on the flanks; thighs white; under tail-coverts and sides of vent clear sandy buff; under wing-coverts and axillaries ashy, with faint hoary tips to the feathers; quills ashy below: "upper mandible reddish brown, the cutting-edges of both mandibles tile-red; legs and feet oil-green, blotched with light ash-colour" (*J. Gould*). Total length 7·5 inches, culmen 0·9, wing 3·9, tail 1·85, tarsus 1·5, middle toe and claw 2·1.

Adult female. Does not differ from the male in colour. Total length 6·8 inches, culmen 0·85, wing 3·75, tail 1·6, tarsus 1·4, middle toe and claw 1·85.

Adult specimens from the Philippines appear to have more grey on the fore neck and breast than individuals from other localities; in these the under surface is often entirely white, with only a little grey across the lower throat.

Young. Browner than the adults, and having the head brown, without any ashy grey on the crown or hind neck; the white facial stripe and the supraloral stripe only faintly indicated, and tinged with brown; sides of face, fore neck, and sides of body brown; the throat, breast, and abdomen pure white; lower flanks and under tail-coverts tawny buff.

Hab. Malayan Peninsula to the Philippines, and throughout the Malayan Islands to Australia and the majority of the Pacific Islands.

a–d. Ad. et imm. sk.	Penang (*Dr. Cantor*).	India Museum.
e, f, g. Ad. et imm. sk.	Malacca (*Dr. Maingay*).	Tweeddale Coll.
h. ♂ ad. sk.	Singapore, Dec. 11 (*A. Bernard*).	Hume Coll.
i. ♂ ad. sk.	Singapore Island, Sept. 19 (*W. Davison*).	Hume Coll.
k. Ad. st.	Java.	E. Wilson, Esq. [P.].
l. Ad.; *m.* Imm. sk.	Java (*Horsfield*).	India Museum. (Types of *P. quadristrigata.*)

n. Ad. sk.	Java.	Tweeddale Coll.
o, *p*. Ad. sk.	Philippine Islands.	H. Cuming, Esq. [C.]. (Types of *O. ocularis*.)
q. Ad. sk.	Manila (*Maitland Heriot*).	Tweeddale Coll.
r. Ad. sk.	Manila, June 14 (*H. Cuming*).	Gould Coll.
s. ♀ ad. sk.	Boac, Marinduque, May 7.	E. L. Moseley, Esq. [C.].
t. Ad. sk.	Cebu.	Prof. Steere [C.].
u, *v*. ♂ ♀ ad. sk.	Cebu, March (*A. H. Everett*).	Tweeddale Coll.
w, *x*. ♂ ♀ ad. sk.	Amparo, S. Leyte, July (*A. H. Everett*).	Tweeddale Coll.
y. ♀ ad. sk.	Dinagat Island, June (*A. H. Everett*).	Tweeddale Coll.
z. ♂ ad. sk.	Zamboanga, Mindanao, April (*A. H. Everett*).	Tweeddale Coll.
a'. Ad. sk.	Celebes.	Tweeddale Coll.
b'. ♂ ad. sk.	E. Timor.	Wallace Coll.
c'. ♂ ad. sk.	Port Essington, Nov.	Dr. Sibbald [P.].
d', *e'*. Ad. sk.	Port Moresby, S.E. New Guinea.	A. Goldie [C.].
f'–*h'*. Ad. et imm. sk.	Samoa.	Rev. J. S. Whitmee [C.].
i'. ♂ imm. sk.	Island of N'gau, Fiji, Oct. (*F. M. Rayner*).	Voy. H.M.S. 'Herald.'

34. PORZANULA.

	Type.
Porzanula, *Frohawk, Ann. & Mag. Nat. Hist.* (6) ix. p. 247 (1892)	P. palmeri.

Range. Laysan Island, N. Pacific.

1. Porzanula palmeri.

Porzanula palmeri, *Frohawk, Ann. & Mag. Nat. Hist.* (6) ix. p. 247 (1892); *Sharpe, Bull. Brit. Orn. Club*, no. iv. p. xx (1892).
Pennula palmeri, *Hartl. Abhandl. nat. Ver. Bremen*, xii. Heft. 3, p. 399 (1892).

Adult. General colour above sandy brown, with black centres to the feathers of the back, these being narrower on the mantle; scapulars slightly more reddish, with a few streaks of white on the outer webs, the centre of the back being similarly marked; wing-coverts like the back, but not streaked with black except on the greater series, which have dusky blackish centres like the secondaries; primary-coverts and quills dark brown, with lighter edges; tail-feathers blackish, with light edges; crown of head sandy brown, like the back; forehead, eyebrows, and under surface ashy grey; sides of neck, sides of breast, sides of flanks, sides of vent, and under tail-coverts sandy brown, the flanks with a few irregular spots of white preceded by a subterminal mark of black; under wing-coverts sandy buff, the greater series and the lower primary-coverts with white tips; quills light brown below. Total length

5 inches, culmen 0·8, wing 2·2, tail 0·8, tarsus 0·9, middle toe and claw 1·2.

Hab. Laysan Island, North Pacific.

a. Ad. sk.	Laysan Island.	Hon. W. Rothschild [P.].
b. Ad. (in spirits).	Laysan Island.	Hon. W. Rothschild [P.].

35. CRECISCUS.

Type.

Creciscus, *Cab. J. f. O.* 1856, p. 428 ..... C. jamaicensis.
Rufirallus, *Bp. C. R.* xliii. p. 599 (1856) ..... C. cayennensis.
Laterirallus, *Bp. C. R.* xliii. p. 599 (1856) ..... C. melanophæus.
Donacophilus, *Reichen. in Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890; *nom. emend. pro* Laterirallus).
Erythrolimnas, *Heine & Reichen. Nomencl. Mus. Hein.* p. 320 (1890; *nom. emend. pro* Rufirallus).

Range. The greater part of the New World.

Key to the Species.

a. Axillaries barred with white, or at least spotted with white*; flanks or under tail-coverts always barred or spotted.
  a'. Breast slaty grey; hind neck rufescent or rufous chocolate, contrasting with the head.
    a''. Wings and back profusely spotted or barred with white; flanks also conspicuously barred.
      a'''. Smaller: nape grey like the crown; back and wings not profusely barred or spotted with white ..... *jamaicensis*, p. 135.
      b'''. Larger: nape brown like the hind neck and mantle; back and wings profusely barred and spotted with white ..... *salinazi*, p. 136.
    b''. Wings and back with only a few scattered spots of white, these being even absent in some specimens; flanks with scarcely any white bars ..... *spilonotus*, p. 137. / *coturniculus*, p. 137.
  b'. Breast whitish, rufous or grey on the sides.
    c''. Hind neck bright chestnut, contrasting with the bluish-grey crown; sides of breast light bluish grey ..... *exilis*, p. 138. / *vagans*, p. 139.
    d''. Hind neck brown like the crown and back; sides of face, sides of neck, and sides of breast rufous.
      c'''. Throat and breast white.
        *a*⁴. Forehead and eyebrow rufous..... *ænops*, p. 140.
        *b*⁴. Forehead and eyebrow brown like the back ..... *melanophæus*, [p. 139.
      d'''. Fore neck and breast chestnut ..... *albigularis*, p. 140.

* *C spilonotus*, when adult, has uniform axillaries and flanks.

b. Axillaries uniform, not barred or spotted with white.
c'. Flanks barred with white; under surface of body white; sides of face, sides of neck, and sides of breast orange-rufous; flanks barred with black ..... *leucopyrrhus*, p. 142.
d'. Flanks uniform.
e''. Throat and breast white; ear-coverts and sides of body chestnut; head like the back ..... *levraudi*, p. 142.
f''. Throat and breast orange-rufous or chestnut, with no white; sides of face grey.
e'''. Crown of head grey; mantle dark chestnut, becoming chocolate-brown on the lower back; inner secondaries and tail black ..... *ruber*, p. 143.
f'''. Crown of head chestnut; rest of upper surface olive, including secondaries and tail ..... *cayanensis*, p. 143. / *facialis*, p. 145.

1. Creciscus jamaicensis.

The Least Water-hen, *Edwards, Gleanings*, vi. p. 142, pl. 278. fig. 2 (1760).
Le Râle de la Jamaique, *Briss. Orn.* vi. *Suppl.* p. 140 (1760).
Le Râle Bidi-Bidi, *Buff. Hist. Nat. Ois.* viii. p. 166 (1781).
Jamaica Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 239 (1785).
Rallus jamaicensis, *Gm. Syst. Nat.* i. p. 718 (1788); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 550 (1829); *Audub. B. Amer.* pl. 349; *id. Orn. Biogr.* iv. p. 359 (1858).
Ortygometra jamaicensis, *Steph. Gen. Zool.* xii. pt. 1, p. 221 (1824); *Bp. Comp. List B. Eur. & N. Amer.* p. 53 (1838); *Audub. B. Amer.* 8vo, v. p. 157, pl. 308 (1842); *Gray, List Grallæ in Brit. Mus.* p. 119 (1844); *id. Gen. B.* iii. p. 593 (1846); *Gosse, B. Jamaica*, p. 375 (1847); *Bp. C. R.* xliii. p. 599 (1856); *Salvin, Ibis*, 1866, p. 198 (Dueñas).
Crex pygmæa, *Blackw. in Brewster's Journ.* vi. p. 77 (1832, *nec Bechst.*).
Corethrura jamaicensis, *Licht. Nomencl. Av. Mus. Berol.* p. 96 (1854).
Creciscus jamaicensis, *Cab. J. f. O.* 1856, p. 428 (Cuba); *Gundl. Orn. Cuba*, p. 362 (1876).
Porzana jamaicensis, *Baird, Cass. & Lawr. B. N. Amer.* p. 745 (1858); *Scl. P. Z. S.* 1861, p. 81 (Jamaica); *March, Proc. Philad. Acad.* 1864, p. 69 (Jamaica); *Schl. Mus. Pays-Bas*, Ralli, p. 67 (1865); *Coues, Proc. Bost. Soc. N. H.* xii. p. 124 (1868: S. Carolina); *Scl. & Salv. P. Z. S.* 1868, p. 455 (pt.); *Turnb. B. East Pennsylv.* p. 33 (1869; breeding); *Coues, Key N. Amer. B.* p. 274 (1872); *Snow. B. Kansas*, p. 11 (1873); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873, pt.); *Coues, B. N.-West*, p. 539 (1874); *Ridgw. Am. Nat.* viii. p. 540 (1875); *id. Ann. Lyc. N. Y.* x. p. 387 (1874: Illinois); *Belding, Proc. U.S. Nat. Mus.* i. p. 443 (1878: Stockton, Cal.). *Maynard, B. East. N. Amer.* p. 432 (1879); *Ridgw. Proc. U.S. Nat. Mus.* iii. p. 202 (1880); *A. & E. Newt. Handb. Jamaica*, p. 114 (1881); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 377 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 674 (1884); *Grinnell,*

F. & S. xxiii. p. 24 (1884: Long Isl.); *Clarke, Auk*, i. p. 393 (1884: Connecticut; breeding); *McCormick, t. c.* p. 397 (D. Columbia); *A. O. U. Check-l. B.* p. 142 (1886); *Brewster, Auk*, iii. p. 139 (1886: Texas); *Goss, t. c.* p. 408 (Kansas); *Ridgw. Man. N. Amer. B.* p. 140 (1887); *Cory, B. West Ind.* p. 256 (1889); *Scott, Auk*, vii. p. 400 (1890: Key West, Florida); *Loomis, Auk*, viii. p. 55 (1891); *Scott, Auk*, ix. p. 11 (1892: Jamaica); *id. t. c.* p. 213 (Florida; rare visitant).

Aramides jamaicensis, *Gray, Hand-l. B.* iii. p. 61, no. 10444 (1871).

Adult. General colour above brown, barred across and spotted with white, these white bars margined with corresponding bars of black; scapulars like the back; lower back and rump rather more blackish, barred with white like the back; upper tail-coverts blackish brown, with white bars; tail black; wing-coverts like the back and barred or spotted with white; bastard-wing dusky brown, with white spots; primary-coverts uniform black; quills dusky brown, with white spots on the outer web of the first primary and white bars on both webs of the secondaries, rather irregular and zigzag in shape; the inner secondaries like the back, and similarly barred with white; crown of head slaty black, the hinder neck dull rufous brown, overspreading the upper mantle; lores blackish; sides of face and under surface of body slaty grey; abdomen, sides of body, flanks, and under tail-coverts black, with whitish bars, the latter with broad rufescent margins; thighs ashy externally, whitish internally; under wing-coverts whitish, with dusky bases; axillaries blackish, barred with white: "bill black; feet bright yellowish green; iris red" (*J. J. Audubon*). Total length 4·8 inches, culmen 0·6, wing 2·65, tail 1·2, tarsus 0·8, middle toe and claw 1.

Young birds have the abdomen white as well as the throat, are less profusely barred with white, have the hind neck ruddy brown instead of inclining to chestnut, and have the crown of the head for the most part brown.

Hab. Temperate North America to the West Indies and Central America.

a. Ad. sk.	California (*Henshaw Coll.*).	Salvin-Godman Coll.
b. Juv. sk.	Dueñas, Guatemala (*O. Salvin*).	Salvin-Godman Coll.
c. Sternum.	Jamaica.	Gosse Coll.

2. Creciscus salinazi.

Ortygometra chilensis, *Bp. C. R.* xliii. p. 599 (1856; descr. nullâ).

Rallus salinazi, *Philippi, Arch. f. Nat.* 1857, p. 262.

Gallinula salinazi, *Philippi, Cat.* p. 38 (1869, *teste Coues*).

Porzana jamaicensis (*nec Gm.*), *Scl. P. Z. S.* 1867, p. 333 (Chili), p. 343 (Lima); *id. & Salv. P. Z. S.* 1868, p. 455 (pt.); *iid. Nomencl. Av. Neotr.* p. 140 (1873, pt.); *Taez. Orn. Pérou*, iii. p. 321 (1886).

Adult. Similar to *C. jamaicensis*, but larger and paler in colour; the back and wing-coverts, and sides of body much more profusely banded with white; the hinder head and nape rufescent brown like

the hind neck and mantle. Total length 5·3 inches, culmen 0·65, wing 3–3·1, tail 1·35, tarsus 1, middle toe and claw 1·2.

The white spots on the quills vary in number with individuals, and, as in the case of the allied *C. spilonotus*, seem to disappear with age.

Hab. Western South America from Chili to Peru.

a. Ad. sk.	Lima, Peru (*D. Forbes*).	Salvin-Godman Coll.
b. Ad. sk.	Lima (*W. Nation*).	Salvin-Godman Coll.
c. Juv. sk.	Chili (*Leybold*).	Salvin-Godman Coll.
d, *e*. Ad.; *f*. Juv. sk.	Province of Santiago, Chili (*Philippi & Landbeck*).	Salvin-Godman Coll.
g. Ad. sk.	Province of Santiago (*E. C. Reid*).	Berkeley James Coll.

3. Crecisicus spilonotus *.

Zapornia spilonota, *Gould in Darwin's Voy. 'Beagle,' Birds*, p. 132, pl. 49 (1841); *Bp. C. R.* xliii. p. 599 (1856).

Ortygometra spilonota, *Gray, List Gralla Brit. Mus.* p. 119 (1844); *id. Gen. B.* iii. p. 594 (1846).

Porzana spilonota, *Scl. & Salv. P. Z. S.* 1868, p. 456, 1871, p. 323; *iid. Nomencl. Av. Neotr.* p. 140 (1873); *Salvin, Trans. Z. S.* x. p. 500 (1876); *Ridgw. Proc. U.S. Nat. Mus.* xii. pp. 120, 123 (1889: Indefatigable & James Isls.).

Aramides spilonota, *Gray, Hand-l. B.* iii. p. 61, no. 10446 (1871).

Adult male. Uniform chocolate-brown, including the wings; lower back, rump, and tail blacker; quills dusky brown, externally chocolate like the back; head all round and under surface of the body dark slaty grey, the lores and sides of face blackish; sides of body and flanks chocolate-brown; under tail-coverts blackish with white bars: "bill black, the lower mandible blackish brown; feet olive-brown; iris red" (*A. Habel*). Total length 4·5 inches, culmen 0·7, wing 2·75, tail 0·9, tarsus 0·8, middle toe and claw 1·1.

The male described is from Indefatigable Island, and three other specimens from the same island in the Salvin-Godman Collection have tiny white spots on the wing-coverts and inner secondaries, and have the lower abdomen almost pure white. This peculiar

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* Crecisicus coturniculus.

Porzana jamaicensis, var. coturniculus, *Ridgw. Amer. Nat.* viii. p. 111 (1874, *ex Baird MSS.*); *Coues, Check-l. N. Amer. B.* p. 110 (1882).

Porzana jamaicensis, β. coturniculus, *Coues. B. N.-West*, p. 540 (1874); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* p. 378 (1884).

Porzana jamaicensis coturniculus, *Ridgw. Proc. U.S. Nat. Mus.* iii. pp. 202, 222 (1881); *Ridgw. A. O. U. Check-l.* p. 143 (1886); *op. cit.* xiii. pp. 309–311 (1889).

Porzana coturniculus, *Ridgw. Proc. U.S. Nat. Mus.* xiii. p. 311 (1889).

Hab. Supposed to be the Faralon Islands, off California.

Mr. Ridgway (*l. c.*) has given a full account of this species, which is represented by the single type specimen in the U.S. National Museum. He suggests that it is closely allied to *C. spilonotus* and is probably identical with that species.

character is not easily explained as a sign of age or sex, but it is probable that the white spots disappear with age, as they vary in number in all the specimens in the Museum. The type specimen seems not to have been transferred with the rest of the Zoological Society's Collection.

Hab. James and Indefatigable Islands in the Galapagos Archipelago.

a–c. ♂ ad.; *d.* ♀ ad. sk.	Indefatigable Island, Oct. (*Dr. A. Habel*).	Salvin-Godman Coll.
e. Juv. sk.	[Galapagos.]	Purchased.

4. Creciscus exilis.

Rallus cinereus (*nec* Porphyrio cinereus, *Vieill.*,=P. cinerea, *suprà*, p. 130), *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 556 (1819).
Rallus exilis, *Temm. Pl. Col.* v. pl. 523 (1831).
Gallinula ruficollis, *Swains. An. in. Menag.* p. 349 (1837).
Ortygometra cinerea, *Gray, Gen. B.* iii. p. 593 (1846); *Léot. Ois. Trinid.* p. 495 (1866).
Laterirallus exilis, *Bp. C. R.* xliii. p. 599 (1856).
Porzana exilis, *Schl. Mus. Pays-Bas*, Ralli, p. 35 (1865: Guiana); *Scl. & Salv. P. Z. S.* 1866, p. 567 (Ucayali).
Porzana cinerea, *Scl. & Salv. P. Z. S.* 1868, p. 456; *Pelz. Orn. Bras.* p. 317 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140; *iid. P. Z. S.* 1873, p. 308; *Tacz. Orn. Pérou*, iii. p. 322 (1886).
Aramides cinerea, *Gray, Hand-l. B.* iii. p. 61, no. 10447 (1871).

Adult male. General colour above chocolate-brown, including the scapulars and wing-coverts; bastard-wing, primary-coverts, and quills dusky brown, edged with ashy brown, the inner secondaries chocolate-brown like the back; rump and upper tail-coverts black, narrowly barred with white; tail-feathers blackish, edged with chocolate-brown; crown of head slaty grey; nape and hind neck maroon-chestnut: a narrow supraloral streak of whitish; sides of face ashy grey; throat, fore neck, and centre of chest white, slightly overshaded with grey on the fore neck; the sides of the neck and of the upper breast bluish grey; rest of under surface of body barred with black and white, broadly on the sides of the breast and more narrowly on the flanks and under tail-coverts, the latter tinged with rufous; under wing-coverts white, mottled with dusky bases to the feathers; axillaries barred with black and white; quills ashy brown below: "bill black, with a greenish tinge for the basal two-thirds of the lower mandible; feet very clear brown; iris red" (*Léotaud*). Total length 5·8 inches, culmen 0·7, wing 2·9, tail 1·35, tarsus 1, middle toe and claw 1·35.

Hab. Amazonia to Guiana and Trinidad.

a. Ad. sk.	America.	Old Coll.
b. Ad. st.	Trinidad.	Old Coll.
c, d. Ad. sk.	Cayenne.	Salvin-Godman Coll.
e, f. Ad. sk.	Maroni River, Surinam (*Kappler*).	Salvin-Godman Coll.
g. ♂ ad. sk.	Nauta, Peruvian Amazons, Jan.	E. Bartlett [C.].
h. ♀ ad. sk.	Nauta, Aug. (*J. Hauxwell*).	Salvin-Godman Coll.

Subsp. *a*. Creciscus vagans.

Porzana exilis vagans, *Ridgw. Proc. U.S. Nat. Mus.* x. p. 595 (1887; Segovia R., Honduras).

Similar to *C. exilis*, but rather larger, with decidedly larger bill and feet. Total length 5·30 inches, wing 2·85, tail 1·25, bill from gape 0·80, tarsus 1·05, middle toe and claw 1·38 (*Ridgway*).

Hab. Segovia River, Honduras.

Mr. Ridgway compares the measurements of this new race with those given for *C. exilis* by Messrs. Sclater and Salvin, and finds them larger. The dimensions, however, do not greatly exceed those given by myself, and I greatly doubt if the Honduras bird is different.

5. Creciscus melanophæus.

Ypacaha pardo obscuro, *Azara, Apunt.* iii. p. 230 (1806).
Rallus melanophaius, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 549 (1819).
Crex lateralis, *Licht. Verz. Doubl.* p. 79 (1823).
Gallinula albifrons *, *Swains. An. in Menag.* p. 338 (1837).
Gallinula lateralis, *Neuwied, Beitr. Naturg. Bras.* iv. p. 805 (1833).
Corethrura melanophæa, *Gray, Gen. B.* iii. p. 595 (1846); *Hartl. Ind. Azara*, p. 24 (1847).
Corethrura albifrons, *Gray, Gen. B.* iii. p. 595 (1846).
Corethrura lateralis, *Licht. Nomencl Av.* p. 96 (1854).
Ortygometra lateralis, *Burm. Th. Bras.* iii. p. 387 (1856: C. Brazil to Paraguay).
Laterirallus albifrons, *Bp. C. R.* xliii. p. 599 (1856).
Porzana melanophæa, *Schl. Mus. Pays-Bas*, Ralli, p. 35 (1865): *Scl. & Salv. Exot. Orn.* p. 107, pl. 54 (1868); *id. P. Z. S.* 1868, p. 453: *Pelz. Orn. Bras.* p. 317 (Rio Janeiro), p. 459 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873).
Aramides melanophaia, *Gray, Hand-l. B.* iii. p. 61, no. 10439 (1871).

Adult male. General colour above dark olive-brown; the scapulars and wing-coverts like the back; the inner secondaries more sooty brown, like the lower back and rump; bastard-wing, primary-coverts, and quills dusky brown, externally olive brown; upper tail-coverts and tail sooty brown; head like the back, but a little more dusky, the lores and feathers round the eye somewhat more ashy; ear-coverts, sides of neck, and sides of chest bright ferruginous; throat and under surface of body white, tinged with reddish on the fore neck and chest; sides of body and flanks blackish, barred with white, a little broader on the latter; under tail-coverts uniform ferruginous; under wing-coverts white with a few dusky bars: "bill blackish brown, bright green on the sides; feet clear olive-brown; iris bright reddish" (*Neuwied*). Total length 5·3 inches, culmen 0·5, wing 3·1, tail 1·5, tarsus 1·2, middle toe and claw 1·4.

* I cannot help thinking that this specific title must be due to a printer's error. The species has not a white forehead, nor is such a character mentioned by Swainson.

Adult female. Similar to the male in colour. Total length 6·5 inches, culmen 0·7, wing 3·1, tail 1·5, tarsus 1·15, middle toe and claw 1·15.

Hab. Brazil.

a. Ad. sk.	South America.	Old Coll.
b. Ad. sk.	South America.	Salvin-Godman Coll.
c. Ad. sk.	Brazil.	M. Claussen [P.].
d, *e.* Ad. sk.	Brazil.	Salvin-Godman Coll.
f. ♀ ad. sk.	Para, July 22 (*E. L. Layard*).	Tweeddale Coll.
g. Ad. sk.	Pernambuco (*W. A. Forbes*).	Salvin-Godman Coll.
h. Ad. sk.	Rio Grande.	Salvin-Godman Coll.
i. Ad. sk.	Rio Grande do Sul.	Tweeddale Coll.
k. Ad. sk.	Santa Fé, Minas Geraes (*Rogers*).	Salvin-Godman Coll.

6. Creciscus ænops.

Porzana ænops, *Scl. & Salv. P. Z. S.* 1880, p. 161 (Sarayacu).

Adult (type of species). Similar to *C. melanophæus*, but differing in the vinous-red forehead, which is like the ear-coverts. Total length 6 inches, culmen 0·8, wing 3·25, tail 1·45, tarsus 1·3, middle toe and claw 1·55.

Young. Differs from the adult in being less brightly coloured and in having the sides of the body brown with a few whitish bars; forehead dusky, with less rufous.

Hab. Ecuador.

a, *b.* Ad. et juv. sk.	Sarayacu, Ecuador (*C. Buckley*).	Salvin-Godman Coll. (Types of species.)

7. Creciscus albigularis*.

Corethrura albigularis, *Lawr. Ann. Lyc. N. Y.* vii. p. 302 (1861: Panama).

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* I have found it impossible, with the limited number of specimens at my disposal, to form a definite opinion as to the races into which Mr. Ridgway has divided these small Red-breasted Crakes. In his paper (Proc. U.S. Nat. Mus. vi. p. 409, note) he has recognized three forms as follows:—

A. Creciscus albigularis.

"Head without any grey, the pileum russet-brown, sides of head rufous. Chin and throat distinctly white, wing-coverts with lighter bars."

Hab. Panama.

I may here remark that of three specimens from Panama, collected by McLeannan at Lion Hill Station, two have white bars on the wing-coverts while the third has the wing-coverts uniform, like those from Colombia.

B. Creciscus leucogaster.

"Porzana leucogaster, *Ridgway, Proc. U.S. Nat. Mus.* vi. p. 408 (1883).

"Head mostly grey, wing-coverts without lighter bars; chin and throat distinctly white, the jugulum pale cinnamon, fading into white on the lower breast; white bars on sides and flanks very narrow."

Hab. N.E. Nicaragua.

Porzana albigularis, *Scl. & Salv. P. Z. S.* 1864, p. 372 (Panama): *iid. P. Z. S.* 1867, p. 280 (Mosquitia); *iid. Exot. Orn.* p. 109, pl. 55 (1868); *iid. P. Z. S.* 1868, p. 454; *iid. Nomencl. Av. Neotr.* p. 140 (1873); *Lawr. Ann. Lyc. N. Y.* ix. p. 142 (1868 : Nicoya); *Scl. & Salv. P. Z. S.* 1879, p. 546 (Antioquia), *Ridgw. Proc. U.S. Nat. Mus.* vi. p. 409 (1883 : Panama).
Aramides albigularis, *Gray, Hand-l. B.* iii. p. 61, no. 10442 (1871).

Adult male. General colour above reddish chocolate-brown with a slight olive tint; scapulars and wing-coverts like the back; bastard-wing, primary-coverts, and quills dusky brown, externally lighter brown; inner secondaries like the back; upper tail-coverts and tail dark chocolate-brown; crown of head dusky olive-brown with a reddish tint, more especially on the forehead and eyebrow; lores ashy; sides of face and sides of neck chestnut, this colour extending over the hind neck and mantle; throat white, with a chestnut tinge on the lower part, the fore neck and chest entirely chestnut, paler in the centre of the latter; remainder of under surface of body white, regularly barred with black; thighs brown externally, white internally; under wing-coverts white, the axillaries white, barred with black; quills ashy below. Total length 5·8 inches, culmen 0·65, wing 2·9, tail 1·25, tarsus 1, middle toe and claw 1·45.

Hab. From Colombia to Costa Rica and Nicaragua.

C. CRECISCUS CINEREICEPS.

Porzana cinereiceps, *Lawr. Ann. Lyc. N. Y.* xi. p. 90 (1875); *Ridgw. Proc. U.S. Nat. Mus.* i. p. 252 (1878: Costa Rica); *id. op. cit.* vi. p. 409, note (1883: Costa Rica).

Head mostly grey; wing-coverts without lighter bars; chin and throat pale cinnamon, the former inclining to whitish; jugulum and whole breast rich chestnut rufous, with the white bars on sides and flanks very broad.
Hab. Eastern Costa Rica (Talamanca).

He has likewise named a fourth species, of which I transcribe the description:—

CRECISCUS ALFARA.

Porzana alfara, *Ridgw. Proc. U.S. Nat. Mus.* x. 1887, p. 111 (Costa Rica).

"Similar to *P. albigularis*, but has the black bars on the flanks much broader.

"*Adult female.* Pileum deep bistre-brown, becoming lighter and more of an umber tint along the hind neck; rest of upper parts deep bistre anteriorly, deepening gradually into blackish brown posteriorly; the tail almost black. Sides of head, neck, and breast cinnamon rufous, most intense laterally, much paler along the middle line, the chin and throat being almost white; lores dull light greyish brown, bordered above by a very indistinct rusty streak on each side of the forehead; ear-coverts greyish brown; entire sides, flanks, thighs, under tail-coverts, anal region, and belly distinctly and regularly barred with black and white, the bars of the latter colour everywhere much narrower than the former; bill dusky olive-greenish, legs and feet olive-blackish. Length (skin) 5·50 inches, wing 3, culmen 0·70, tarsus 1·20, middle toe 1·25." (*R. Ridgway.*)
Hab. Costa Rica.

a. Juv. sk.	La Barranca, Nicoya, Costa Rica, March (*E. Arcé*).	Salvin-Godman Coll.
b. Ad. sk.	Veragua (*E. Arcé*).	Salvin-Godman Coll.
c, *d*. ♂; *e*. ♀ ad. sk.	Lion Hill Station, Panama (*McLeannan*).	Salvin-Godman Coll.
f–*i*. ♂ ad. et juv. sk.	Remedios, Antioquia, Colombia (*T. K. Salmon*).	Salvin-Godman Coll.

8. Creciscus leucopyrrhus.

Ypacaha pardo acanelado y blanco, *Azara, Apunt.* iii. p. 228 (1802).
Rallus leucopyrrhus, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 550 (1819).
Corethrura leucopyrrha, *Hartl. Ind. Azara*, p. 24 (1847); *Gray, Gen. B.* iii. p. 595 (1846); *Burm. Reis. La Plata*, ii. p. 505 (1861 : Tucuman).
Corethrura hypoelucos, *Licht. Nomencl. Av.* p. 96 (1854).
Laterirallus hypoleucus, *Bp. C. R.* xliii. p. 599 (1856).
Porzana leucopyrrha, *Scl. & Salv. P. Z. S.* 1868, p. 454; *iid. Nomencl. Av. Neotr.* p. 140 (1873); *Scl. & Hudson, Argent. Orn.* ii. p. 154 (1889); *Berl. & Ihering, Zeitsch. ges. Orn.* ii. p. 109 (1885).
Aramides leucopyrrha, *Gray, Hand-l. B.* iii. p. 61, no. 10441 (1871).

Adult. General colour above dark olive-brown with a rufescent tinge; wings like the back; quills darker brown; lower back, rump, upper tail-coverts, and tail more dusky brown than the back; fore part of crown, sides of face, cheeks, and ear-coverts bright rufous like the sides of the neck and sides of the breast; throat and under surface of body white, the flanks distinctly barred with black; under tail-coverts black, the lateral ones white; under wing-coverts and axillaries white; quills ashy brown below. Total length 6·7 inches, culmen 0·75, wing 3·2, tail 1·9, tarsus 1·25, middle toe and claw 1·45.

Hab. Southern Brazil, Argentina and Paraguay.

a. Ad. sk.	South America.	Salvin-Godman Coll.
b. Imm. sk.	[Chili.]	Old Coll.

9. Creciscus levraudi.

Porzana levraudi, *Scl. & Salv. P. Z. S.* 1868, p. 452, pl. xxxv. (Caracas); *iid. Nomencl. Av. Neotr.* p. 139 (1873); *iid. P. Z. S.* 1873, p. 512 (Venezuela).
Aramides levraudi, *Gray, Hand-l. B.* iii. p. 61, no. 10437 (1871).

Adult. General colour above dark olive-brown; wing-coverts and scapulars like the back; primary-coverts and quills paler brown; inner secondaries dark brown, like the lower back, rump, and upper tail-coverts, as well as the tail-feathers; crown of head and hind neck like the back; lores ashy, surmounted by a narrow line of vinous white; sides of face and ear-coverts as well as the sides of the neck, sides of breast, flanks, and under tail-coverts vinous chestnut; throat and centre of breast and abdomen white, with a tinge of reddish on the fore neck; under wing-coverts and axil-

laries pale vinous red, the median series whitish. Total length 6·6 inches, culmen 0·75, wing 3·3, tail 1·4, tarsus 1·25, middle toe and claw 1·5.

Hab. Venezuela.

a. Ad. sk.	Venezuela (*Spence*).	Salvin-Godman Coll.

10. Creciscus ruber.

Corethrura rubra, *Scl. & Salv. P. Z. S.* 1860, p. 300; *iid. Ibis*, 1860, p. 277 (Coban).
Porzana rubra, *Scl. & Salv. Ex. Orn.* p. 31, pl. xvi. (1867): *iid. P. Z. S.* 1868, p. 452; *iid. Nomencl. Av. Neotr.* p. 139 (1873); *Salvin, Ibis*, 1890, p. 89 (Yucatan).
Aramides rubra, *Gray, Hand-l. B.* iii. p. 60, no. 10434 (1871).

Adult. General colour above chocolate-brown, slightly washed with rufous; wing-coverts like the back, but with a little more rufous tint; bastard-wing, primary-coverts, and quills ashy brown, the inner secondaries brown like the back; tail-feathers dark brown; crown of head slaty grey, as also the entire sides of the face; hind neck and mantle deep chestnut, as also the sides of the body and the under tail-coverts; a faint supraloral line of isabelline; throat and under surface of body bright chestnut, darker on the sides and inclining to vinous on the abdomen; thighs externally grey, internally vinous; under wing-coverts and axillaries pale chestnut, the greater series ashy, edged with rufous; quills ashy below. Total length 5 inches, culmen 0·85, wing 3·2, tail 1·35, tarsus 1·25, middle toe and claw 1·55.

Hab. Central America.

a, *b*. ♂; *c*. ♀ ad. sk.	Cozumel Island, Feb. (*G. F. Gaumer*).	Salvin-Godman Coll.
d. Ad. sk.	British Honduras (*Blancaneaux*).	Salvin-Godman Coll.
e, *f*. Ad. sk.	Guatemala.	Purchased.
g. Ad. sk.	Coban, Vera Paz, Nov. (*O. S.*).	Salvin-Godman Coll. (Type of species.)
h, *i*. ♂; *k*, *l*. Ad.	Choctum, Vera Paz, Jan. (*O. S. & F. D. G.*).	Salvin-Godman Coll.
m. Ad. sk.	Lake of Dueñas, Dec. (*O. S.*).	Salvin-Godman Coll.
n. Ad. sk.	Vera Paz (*O. S.*).	Tweeddale Coll.

11. Creciscus cayanensis *.

Râle de Cayenne, *Daubent. Pl. Enl.* ix. pl. 368.
Râle à ventre roux de Cayenne, *Daubent. t. c.* pl. 753.
Le Kiolo, *Buff. Hist. Nat. Ois.* viii. p. 164 (1781).
Rallus viridis, *P. L. S. Müll. Syst. Nat. Suppl.* p. 120 (1776); *Cass. Proc. Philad. Acad.* 1864, p. 247.

* The oldest name for this species is undoubtedly *viridis* of P. L. S. Müller, but I do not adopt it, as there is nothing *green* about the plumage of the bird.

Rallus cayanensis, *Bodd. Tabl. Pl. Enl.* p. 22 (1783); *Temm. Tabl. Méth. Pl. Col.* p. 98 (1839).
Cayenne Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 238 (1785).
Rallus cayennensis, *Gm. Syst. Nat.* i. p. 718 (1788).
Rallus kiolo, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 556 (1819).
Crex cayennensis, *Licht. Verz. Doubl.* p. 79 (1823).
Crex aurita, *J. E. Gray, Zool. Misc.* p. 13 (1831).
Gallinula pileata, *Neuwied, Beitr. Naturg. Bras.* iv. p. 802 (1833); *Tschudi & Cab. Faun. Peruan.* pp. 52, 302 (1845–46).
Gallinula ecaudata (*nec King*), *Swains. An. in Menag.* p. 348 (1837).
Rallus poliotis, *Temm. Tabl. Méth.* p. 88 (1839).
Ortygometra aurita, *Gray, List Grallæ in Brit. Mus.* p. 119 (1844).
Corethrura cayennensis, *Gray, Gen. B.* iii. p. 595 (1846): *Moore, P. Z. S.* 1859, p. 64 (Omoa); *Scl. & Salv. Ibis*, 1859, p. 230.
Corethrura aurita, *Gray, Gen. B.* iii. p. 595 (1846).
Corethrura ecaudata, *Gray, Gen. B.* iii. p. 595 (1846).
Ortygometra cayennensis, *Burm. Th. Bras.* iii. p. 386 (1856).
Rufirallus cayanensis, *Bp. C. R.* xliii. p. 599 (1856).
Porzana cayennensis, *Scl. & Salv. P. Z. S.* 1867, p. 592 (Pará); *iid. Nomencl. Av. Neotr.* p. 139 (1873); *iid. P. Z. S.* 1873, p. 308 (Xeberos); *iid. P. Z. S.* 1879, p. 545 (Antioquia); *Salvin, Ibis*, 1886, p. 176 (Merumé Mts.; Roraima); *Tacz. Orn. Pérou*, iii. p. 323 (1886: Monterico); *Riker & Chapm. Auk*, viii. p. 163 (1891: Santarem).
Porzana cayanensis, *Scl. & Salv. P. Z. S.* 1868, p. 451; *Pelz. Orn. Bras.* p. 316 (1871: Matagrosso, Barra do Rio Negro. Pará).
Aramides viridis, *Gray, Hand-l. B.* iii. p. 60, no. 10433 (1871).
Porzana viridis, *Tacz. P. Z. S.* 1874, p. 599 (Amable Maria, Peru): *Allen, Bull. Amer. Mus. Nat. Hist.* ii. p. 271 (1889).

Adult male. General colour above uniform olive-brown; wing-coverts like the back, but slightly edged with rufous on the median and greater series; bastard-wing and quills chocolate-brown; the inner secondaries olive like the back; tail-feathers blackish, edged with olive; crown of head bright chestnut as far as the occiput, the latter being olive-brown like the hind neck and sides of neck; a narrow eyebrow, lores, sides of face, and ear-coverts ashy grey; cheeks and under surface of body bright chestnut, the throat whiter; sides of upper breast olive; flanks chestnut washed with olive; thighs ashy; under tail-coverts chestnut; under wing-coverts pale chestnut, the lower series ashy brown with rufous tips: "culmen dark dusky ashy grey, the base of the lower mandible bluish lead-colour; feet dark rosy red; iris cinnabar red" (*Neuwied*). Total length 5·8 inches, culmen 0·8, wing 3·6, tail 1·55, tarsus 1·4, middle toe and claw 1·55.

Adult female. Similar in colour to the male. Total length 6 inches, culmen 0·8, wing 3·8, tail 1·35, tarsus 1·4, middle toe and claw 1·45.

Hab. Brazil and Amazonia to Guiana and Colombia.

a, b. Ad. sk.	South America.	Old Coll. (Types of *C. aurita*, J. E. Gray.)
c, d. Ad. sk.	Brazil.	Salvin-Godman Coll.
e. Ad. sk.	Para (*A. R. Wallace*).	Salvin-Godman Coll

f, g. ♂ ad. sk.	Merumé Mountains, British Guiana, July 21 (*H. Whitely*).	Salvin-Godman Coll.
h. ♀ ad. sk.	Roraima, Feb. 1 (*H. W.*).	Salvin-Godman Coll.
i, k. ♂ ♀ ad. sk.	Remedios, Antioquia, Colombia (*T. K. Salmon*).	Salvin-Godman Coll.
l. ♀ ad. sk.	Bogotá.	Salvin-Godman Coll.
m. ♂ ad. sk.	Xeberos, Eastern Peru, June 19 (*E. Bartlett*).	Salvin-Godman Coll.

12. Creciscus facialis.

Crex facialis, *Tschudi, Faun. Per.* pp. 52, 301 ; *Sel. & Salv. P. Z. S.* 1868, p. 443.
Ortygometra facialis, *Gray, Gen. B.* iii. p. 594 (1846).
Laterirallus facialis, *Bp. C. R.* xliii. p. 599 (1856).
Porzana facialis, *Tacz. Orn. Pérou,* iii. p. 324 (1886) (Central Peru).

I am indebted to the kindness of Prof. Paul Godet for the loan of the type of this species, which is still preserved in the Museum at Neuchatel. It is a young bird in very poor condition, and its general coloration is brown without any olive shade; the head is brown, but there is a slight appearance of chestnut; the under surface also appears to have been light brown, rufescent on the under tail-coverts ; throat white, with some bright rufous feathers appearing ; sides of face and ear-coverts slaty grey. Total length 5 inches, culmen 0·65, wing 3·5, tail 1·1, tarsus 1·45, middle toe and claw 1·2. It is very possibly only an immature bird of *C. cayanensis,* but it is impossible to decide from such an imperfect specimen.

Hab. Peru.

36. LIMNOBÆNUS.

	Type.
Limnobænus, *Sundev. Av. Meth. Tent.* p. 130 (1872)	L. fuscus.

Range. India and China to Japan, the Burmese countries, and the Malayan Peninsula and Indo-Malayan islands.

Key to the Species.

a. No white streaks on the back or wings.
  a'. Flanks olive-brown with narrow whitish bars, these sometimes absent; axillaries uniform like under wing-coverts ..... } *fuscus*, p. 146.
  b'. Flanks and under tail-coverts broadly barred with black and white ; axillaries also barred with black and white ..... } *phæopygus*, p. 148.
b. White edges to the feathers of the back and wing-coverts, which appear streaked : flanks and under tail-coverts tawny buff, without bars ..... *paykulli*, p. 149.
suahelensis, p. 150.

1. Limnobænus fuscus.

Le Rasle brun des Philippines, *Briss. Orn.* v. p. 173, pl. xv. fig. 2 (1760).
Rallus fuscus, *Linn. Syst. Nat.* i. p. 262 (1766); *Gm. Syst. Nat.* i. p. 713 (1788).
Râle brun des Philippines, *Daubent. Pl. Enl.* ix. pl. 773.
Le Tiklin brun, *Buff. Hist. Nat. Ois.* vi. p. 161 (1781).
Brown Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 233 (1785).
Rallus rubiginosus, *Temm. Pl. Col.* v. pl. 357 (1825).
Zapornia flammiceps, *Hodgs. Icon. ined. in Brit. Mus. Grallæ*, pl. 112. figs. 1, 2 (nos. 374, 375); *id. in Gray's Zool. Misc.* p. 86 (1844).
Ortygometra fusca, *Gray, List Grallæ Brit. Mus.* p. 118 (1844).
Ortygometra flammiceps, *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 142 (1846).
Corethrura fusca, *Gray, Gen. B.* iii. p. 595 (1846).
Corethrura rubiginosa, *Gray, Gen. B.* iii. p. 595 (1846).
Gallinula erythrothorax, *Temm. & Schl. Faun. Jap., Aves*, p. 121, pl. lxxviii. (1850).
Euryzona rubiginosa, *Bp. C. R.* xliii. p. 599 (1856).
Corethrura erythrothorax, *Cass. in Perry's Exped. Japan*, ii. p. 229 (1856).
Porzana erythrothorax, *Swinh. Ibis*, 1861, pp. 57, 411 (Canton, Amoy); *Blakist. Ibis*, 1862, p. 331 (Japan); *Swinh. P. Z. S.* 1870, p. 603; *id. P. Z. S.* 1871, p. 414; *id. Ibis*, 1874, p. 163 (Hakodadi), 1875, p. 134 (Chefoo); *David & Oust. Ois. Chine*, p. 486 (1877); *Blakist. & Pryer, Ibis*, 1878, p. 225; *Blakist. Amended List*, p. 13 (1884); *Stejn. Pr. U. S. Nat. Mus.* ix. p. 398 (1886); *Styan, Ibis*, 1891, pp. 329, 501 (Lower Yangtze, summer).
Porzana fusca, *Swinh. Ibis*, 1863, p. 426 (Formosa); *Jerd. B. Ind.* iii. p. 724 (1864); *Blyth, Ibis*, 1867, p. 171; *Godw.-Aust. J. A. S. Beng.* xliii. pt. 2, p. 175 (1874: Shillong); *Hume, Str. F.* iii. p. 188 (1875); *Blyth, B. Burm.* p. 161 (1875); *Wald. Trans. Z. S.* ix. p. 230 (1875); *Tweedd. P. Z. S.* 1878, p. 344 (N. Leyte, Sept.), p. 953 (Zamboanga, April); *Hume, Str. F.* vii. p. 489 (1878: Calcutta); *Legge, B. Ceylon*, p. 769 (1879); *Hume & Marshall, Game B. Ind.* ii. p. 217 cum tab. (1879); *Davids. Str. F.* x. p. 322 (1882: Khandeish); *Oates, Handb. B. Brit. Burm.* ii. p. 346 (1883); *Davison, Str. F.* x. p. 415 (1885: Wynaad); *Stejn. Proc. U. S. Nat. Mus.* xix. p. 399 (1886); *Reid, Str. F.* x. p. 453 (1887: Lucknow); *Taylor, t. c.* p. 466 (Manzeerabad); *Hume, Str. F.* xi. p. 329 (not in Manipur); *Oates, ed. Hume's Nests & Eggs*, iii. p. 396 (1890).
Rallina fuliginosa, *Gray, Hand-l. B.* iii. p. 58, no. 10395 (1871).
Rallina fusca, *Schl. Mus. Pays-Bas*, Ralli, p. 20 (1865); *Gray, Hand-l. B.* iii. p. 58, no. 10391 (1871); *Hume, Nests & Eggs Ind. B.* p. 604 (1873); *Salvad. Ucc. Born.* p. 338 (1874); *Anderson, Rep. Exped. Yunnan, Zool.* p. 691 (1878); *Hume & Davison, Str. F.* vi. p. 467 (1878: not in Tenasserim); *Hume, Str. F.* viii. p. 113 (1879); *Everett, Journ. Straits Branch As. Soc.* 1889, p. 202.
Limnobænus rubiginosus, *Sundev. Av. Meth. Tent.* p. 130 (1872).
Crex fusca, *Seebohm, Birds Japan. Emp.* p. 357 (1890).
Crex fusca erythrothorax, *Seebohm, Ibis*, 1892, p. 490 (Tsu-shima).

Adult male. General colour above dark olive, the scapulars like the back; lower back, rump, and upper tail-coverts rather darker

and more blackish; wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish, externally olive, the innermost secondaries like the back; tail-feathers black; crown of head deep vinous chestnut, becoming olive towards the hinder crown and nape, which is olive like the hind neck; sides of crown, sides of face, and under surface of body deep vinous chestnut, a little lighter on the chin; sides of body and flanks as well as the lower abdomen dark olive; the feathers on the abdomen, lower flanks, and sides of vent fringed with white; thighs uniform olive; under tail-coverts black, fringed with white; under wing-coverts and axillaries dark olive, fringed with whitish; quills below dusky: "bill greenish brown; legs and toes red; hinder part of leg fuscous; iris crimson; eyelids plumbeous, the edges red" (*E. W. Oates*). Total length 7·8 inches, culmen 0·9, wing 4, tail 1·8, tarsus 1·4.

Adult female. Scarcely different in colour from the male, but a little paler, especially as regards the vinous colour of the throat and breast. Total length 8 inches, culmen 0·9, wing 4·05, tail 1·91, tarsus 1·3.

This species varies considerably in size, but it would seem impossible to recognize more than one form. A series of specimens from Ceylon and Southern India have the wing from 3·5 to 3·8 inches. Others from Central and Northern India are somewhat larger, with the wing measuring a trifle over 4 inches. The males from Calcutta have the wing from 4·0 to 4·35 inches, and the females have the wing from 3·85 to 4·2 inches. In the Malayan Peninsula, Java, and the Philippine Islands the dimensions are again small, the wing measuring from 3·5 to 3·85 inches. The largest specimens are from China and Japan, the wing never being less than 4 inches, measuring, in fact, from 4·2 to 4·6 inches. The amount of white on the throat, which is considered by some writers to be a character for distinguishing the Japanese and Chinese bird, is very variable, and seems to be a sign of immaturity, as there are red-throated and white-throated birds from nearly every locality enumerated below.

Young. Entirely different from the adults. General colour above uniform dark olive, with a slight tinge of vinous on the forehead and above the eye; sides of face dusky brown; throat white; fore neck and remainder of under surface whitish, barred with dusky olive; the sides of body, flanks, and thighs uniform dark olive; under tail-coverts black, broadly barred and tipped with white; under wing-coverts dark olive edged with white.

Hab. Indian Peninsula and Ceylon, Burmese countries to Malayan Peninsula, Java, and the Philippines, Japan, and China.

a–i. Ad. sk.	Ceylon (*H. Nevill*).	Tweeddale Coll.
k, l. Ad. sk.	Ceylon.	Hume Coll.
m. Juv. sk.	Nuwara Eliya, Ceylon.	Mr. E. Boate [C.].
n. Ad. sk.	Travancore.	F. E. Bourdillon, Esq. [C.].
o, p. ♂ ad.; *q.* ♀ ad. sk.	Karoli, Wynaad, May (*W. Davison*).	Hume Coll.
r. ♂ ad. sk.	Woolur Lake, Cashmere, Sept.	Hume Coll.

s. Ad. sk.	Cashmere.	Tweeddale Coll.
t. Ad. sk.	Cashmere.	Hume Coll.
u. Ad. sk.	Northern India.	Gould Coll.
v Ad. sk.	Etawah.	Hume Coll.
w. Ad. sk.	Oudh.	Pinwill Coll.
x-*a'*. Ad.; *b'*, *c'*, *d'*. Juv. sk.	Nepal. (Types of *Z. flammiceps*, Hodgs.)	Hodgson Coll.
e'. Juv. sk.	Nepal (*B. H. Hodgson*).	India Museum.
f'. Ad. sk.	Darjiling.	Hume Coll.
g'. Ad. sk.	Buxa Doars, Jan. (*L. Mandelli*).	Hume Coll.
h'. Ad. sk.	Bhotan Doars, Feb. (*L. Mandelli*).	Hume Coll.
i'. ♂ ad. sk.	Sadhya, Assam.	Tweeddale Coll.
k'. ♂ ad. sk.	Dibrughur, July 1 (*J. R. Cripps*).	Hume Coll.
l'-*p'*. ♂ ad.; *q'*-*y'*. ♀ ad. et imm. sk.	Calcutta, Jan., Feb. (*A. O. H.*).	Hume Coll.
z', *a''*. Ad. sk.	Pegu, May.	Hume Coll.
b'', *c''*. ♂ ad.; *d''*. ♀ ad. sk.	Boulay, Pegu, April, Sept., Oct.	Oates Coll.
e''. Ak. sk.	Rangoon.	Hume Coll.
f''. ♂ ad. sk.	Momien, Yunnan, June 1.	Dr. J. Anderson [C.].
g''. Ad. sk.	Tenasserim.	J. C. D. Packman, Esq. [P.].
h''. Ad. sk.	Klang, Jan. 30 (*W. Davison*).	Hume Coll.
i''. Juv. sk.	Galang, Singapore, Dec. 1 (*G. R. Kelham*).	Tweeddale Coll.
k''. Ad. sk.	Java.	Tweeddale Coll.
l''. Ad. sk.	Manila, Luzon.	Gould Coll.
m''. Ad. sk.	Manila (*Maitland Heriot*).	Tweeddale Coll.
n''. ♂ ad. sk.	S. Leyte, Sept. (*A. H. Everett*).	Tweeddale Coll.
o''. ♂ ad. sk.	Zamboanga, April (*A. H. E.*).	Tweeddale Coll.
p''. Ad. st.	Japan.	Purchased.
q''. ♀ ad. sk.	Japan.	Leyden Museum.
r''. Ad. sk.	Japan.	Tweeddale Coll.
s''-*u''*. ♂ ad. sk.	Hakodadi, May, June (*Capt. Blakiston*).	Tweeddale Coll.
v''. ♂ ad. sk.	Hakodadi, May 20 (*Henson*).	Seebohm Coll.
w'', *x''*. ♂ et juv. sk.	Yokohama (*H. Pryer*).	Seebohm Coll.
y''. ♀ ad. sk.	Nagasaki, Nov. 20.	F. Ringer, Esq. [P.].
z''. Ad. sk.	Canton, China.	Tweeddale Coll.
a^3-d^3. Ad. sk.	Canton (*R. Swinhoe & S. Bligh*).	Seebohm Coll.
e^3. Ad. sk.	Amoy, Nov. (*R. S.*).	Seebohm Coll.
f^3. Ad. sk.	Formosa, Aug. (*R. S.*).	Seebohm Coll.
g^3. Skeleton (without skull).	Java.	Purchased.

2. Limnobænus phæopygus.

Porzana phæopyga, *Stejn. Proc. U.S. Nat. Mus.* x. p. 394 (1887: Yayeyama Isl.).

Similar to *P. fuscus*, but darker throughout, the lower back and rump being of an olivaceous "clove-brown," and the abdomen, under wing-coverts, and tail-coverts blackish, transversely

barred with whitish : outer web of first primary with a number of whitish spots, the inner feather of alula similarly marked. Wing 10·5 millim., tail-feathers 51, exposed culmen 23, tarsus 39, middle toe and claw 46. (*Stejneger.*)

Hab. Liu Kiu Archipelago.

3. Limnobænus paykulli.

Rallus paykulli, *Ljungh. Sver. Vet.-Akad. Handl.* 1813, p. 258.
Crex erythrothorax (*nec T. & S.*), *Radde, Reis. Sibir.* ii. p. 309 (1863); *Bogd. Consp. Av. Imp. Ross.* p. 51 (1884).
Porzana rufigenis, *Wall. P. Z. S.* 1865, p. 481 (Sarawak).
Gallinula erythrothorax, *Prjev. Putesch. Ussuri*, p. 54 (1870).
Porzana mandarina, *Swinh. Ann. & Mag. N. H.* (4) v. p. 173 (1870 : Canton).
Rallina mandarina, *Swinh. P. Z. S.* 1871, p. 415; *id. Ibis*, 1875, p. 136 (Chefoo); *David & Oust. Ois. Chine*, p. 488, pl. 123 (1877).
Rallina rufigenis, *Gray, Hand-l. B.* iii. p. 38, no. 10396 (1871): *Salvad. Ucc. Born.* p. 338 (1874); *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 536 (1876: Moera Teweh); *Everett, Journ. Straits Branch As. Soc.* 1889, p. 201.
Rallina erythrothorax (*nec T. & S.*), *Tacz. J. f. O.* 1876, p. 202; *id. Bull. Soc. Zool. France*, i, p. 260 (1876).
Rallina paykulli, *Hume, Str. F.* viii. p. 406 (1879).
Porzana paykulli, *Steju. Proc. U.S. Nat. Mus.* ix. p. 400 (1886).

Adult male. Similar to *L. fuscus*, and having red legs like the latter species ; upper surface ashy brown, as also the wings and tail ; head ashy brown, with a rufous tinge on the forehead ; lores, sides of face, throat, and breast pale vinous chestnut ; chin whitish ; sides of breast ashy brown ; flanks and thighs white, barred with dusky blackish ; under tail-coverts black, barred and tipped with white ; axillaries and under wing-coverts white, with dusky blackish bars : "bill bluish grey, blackish on the culmen and about the tip, pea-green about the base ; inside of mouth flesh-colour ; iris crimson ; eyelid red ; legs and toes salmon-colour, brownish on the under surface of the tarsi, on the toes, and on their soles" (*R. Swinhoe*). Total length 8·5 inches, culmen 1·1, wing 4·7, tail 2·15, tarsus 1·5.

Young (type of *Rallina rufigenis*). Similar to the adult, but duller above, paler rufous below, the abdomen white with a vinous tinge ; throat white ; wing-coverts much more numerously banded with white.

Hab. Eastern Siberia to China, south to the Malayan Peninsula, Java, and Borneo.

a, b. ♂ ♀ ad. sk.	Chefoo, China, May, June (*R. Swinhoe*).	Tweeddale Coll.
c, d, e. ♂ ad.; *f.* Juv. sk.	Chefoo, May, June, Oct. (*R. Swinhoe*).	Seebohm Coll.
g. ♂ ad. sk.	Shanghai, May 1875 (*W. Pryer*).	Shanghai Museum.
h. Ad. sk.	Malacca, March 9.	Hume Coll.
i. ♂ imm. sk.	Sarawak, Borneo.	Wallace Coll. (Type of *P. rufigenis*.)

4. Limnobænus suahelensis.

Crex suahelensis, *Tristram, P. Z. S.* 1882, p. 93; *Reichen. & Schalow J. f. O.* 1883, p. 402; *Tristr. Cat. Tristr. Coll.* p. 28 (1889).

? *Adult* (type of species). General colour above blackish, with a reddish-brown tinge, the feathers washed with this colour at the ends, the wing-coverts more entirely reddish brown; all the feathers of the back, scapulars, and wing-coverts with whitish margins to both webs of the feathers, imparting a curiously streaked appearance to the upper surface; lower back, rump, and upper tail-coverts more uniform dark brown; bastard-wing ashy brown, the outer feather margined with white, the first primary edged with white; primary-coverts darker brown; quills sepia-brown, the innermost secondaries like the back and similarly streaked with white; upper tail-coverts and tail-feathers dark brown, edged with tawny buff; crown of head and hind neck uniform rufous brown; the sides of the neck with a few tiny white spots; lores, eyebrow, and sides of face light tawny rufous, as also the sides of the neck, fore neck, and chest; throat white, as also the breast and abdomen; sides of body dark brown with white margins, the sides of the breast tawny; thighs light ashy: under tail-coverts and lower flanks tawny rufous; under wing-coverts ashy with whitish margins. Total length 9 inches, culmen 0·75, wing 4, tail 2, tarsus 1·4, middle toe and claw 2·1 (*Mus. H. B. Tristram*).

Hab. Eastern Africa (Ribè).

37. LIMNOCORAX.

	Type.
Limnocorax, *Peters, Ber. preuss. Akad. Wissench. Berlin*, 1854, p. 187	L. niger.

Range. Confined to Africa.

1. Limnocorax niger.

Black Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 236 (1785).

Rallus niger, *Gm. Syst. Nat.* i. p. 717 (1788); *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 559 (1819); *Less. Traité*, p. 537 (1831).

Gallinula carinata, *Swains. Classif. B.* i. p. 158, fig. 86, c. d. (1837).

Gallinula flavirostra, *Swains. B. W. Afr.* ii. p. 244, tab. 28 (1837); *id. An. in Menag.* p. 338 (1837).

Ortygometra nigra, *Gray, List Grallæ Brit. Mus.* p. 118 (1844); *Finsch & Hartl. Vög. Ostafr.* p. 779 (1870); *Gray, Hand-l. B.* iii. p. 62, no. 10458 (1871); *Reichen. J. f. O.* 1877, p. 12 (Loango Coast); *Fischer & Reichen. J. f. O.* 1878, p. 248 (Osi-Tana district); *Hartl. Abhandl. nat. Ver. Bremen*, vii. p. 119 (1881: Lado); *Pelz. Verh. z.-b. Wien*, xxxi. p. 155 (1881: Mahagi); *Böhm, J. f. O.* 1882, p. 186 (Kakoma, May); *Schalow, J. f. O.* 1883, p. 340; *Fischer, Zeitschr. ges. Orn.* i. p. 386 (1884: Nguruman, Naiwascha Lake); *Büttik. Notes Leyd. Mus.* vii. p. 245 (1885: Liberia); *Meyer, Abbild. Vogel-Sk.* pt. xi. (1884); *Fischer, J. f. O.* 1885, p. 117 (Zanzibar: Barawa); *Böhm, t. c.* p. 38 (Gonda); *Reichen. J. f. O.* 1887, p. 48 (Kagehi); *Matschie, t. c.* p. 145 (Marungu)

p. 139 (Lualaba, Likulwe); *Reichen. J. f. O.* 1889, p. 267 (Zanzibar, July, Nov.; Quilimane, Jan.); *Büttik. Notes Leyd. Mus.* xi. p. 137 (1889: Liberia, breeding).

Rallus æthiops, *Forster, Descr. Anim.* p. 400 (1844).

Corethrura nigra, *Licht. Nomencl. Av.* p. 96 (1854).

Limnocorax capensis, Limnocorax senegalensis, *Peters, MB. Akad. Berlin*, 1854, p. 188.

Limnocorax mosambicus, *Peters, l. c.*; *Kirk, Ibis*, 1864, p. 335 (Zambesi); *Cab. in Von der Decken, Reis.* iii. p. 51 (1869); *Cab. J. f. O.* 1878, p. 246 (Kitui).

Limnocorax flavirostris, *Hartl. J. f. O.* 1858, p. 361; *Gurney, Ibis*, 1862, p. 35 (Natal); *Scl. P. Z. S.* 1864, p. 144; *Monteiro, P. Z. S.* 1866, p. 95 (Angola); *Sharpe, Ibis*, 1869, p. 195 (Fantee); *Hartert. J. f. O.* 1886, p. 608 (Loko, June); *Sharpe, Ibis*, 1892, p. 546 (Turquel).

Ortygometra erythropus, *Heugl. Syst. Uebers.* p. 64 (1856); *id. J. f. O.* 1863, p. 28; *Antin. Cat. descr. Uec.* p. 111 (1864).

Ortygometra flavirostra, *Cass. Proc. Philad. Acad.* 1859, p. 175 (Camma R.); *Hartl. J. f. O.* 1861, p. 272 (Casamance); *Gray, Hand-l. B.* iii. p. 62, no. 10459 (1871).

Limnocorax erythropus, *Heugl. J. f. O.* 1863, p. 170.

Porzana nigra, *Schl. Mus. Pays-Bas*, Ralli, p. 34 (1865).

Gallinula nigra, *Layard, B. S. Afr.* p. 342 (1867).

Gallinula aterrima, *Heugl. J. f. O.* 1867, p. 303.

Limnocorax niger, *Gurney, Ibis*, 1868, p. 470 (Mooi River); *Ayres, Ibis*, 1874, p. 105; *Barratt, Ibis*, 1876, p. 213 (Potchefstroom); *Ayres, Ibis*, 1878, p. 301 (Potchefstroom); *Oust. N. Arch. Mus.* (2) ii. *Bull.* p. 114 (1879: Ogowè River, Dec.); *Bocage, Orn. Angola*, p. 481 (1881); *W. A. Forbes, Ibis*, 1883, pp. 512–537 (Niger); *Sharpe, ed. Layard's B. S. Afr.* p. 618 (1884); *W. Ayres, Ibis*, 1887, p. 62 (Umzeila's Country); *Shelley, Ibis*, 1888, p. 304 (Jipi); *id. Ibis*, 1893, p. 29 (Mpimbi).

Adult male. General colour above and below black, the hind neck, mantle, scapulars, and wing-coverts shaded with ashy grey, a tint of which colour also overspreads the under surface; the back and wings with a shade of deep chocolate-brown: "bill dull dark green; tarsi and feet dull red; iris crimson (*T. Ayres*). Total length 7 inches, culmen 1, wing 3·9, tail 1·3, tarsus 1·5, middle toe and claw 1·8.

Adult female. Similar to the male in colour: "bill light greenish yellow; tarsi and feet deep rose-red; iris bright crimson; eyelids rosy red" (*T. Ayres*).

Nestling. Entirely covered with black down: "bill flesh-colour, with a black cross-band before the nostrils, becoming broader on the lower mandible; feet brown; iris brown" (*J. Büttikofer*).

Young. Chocolate-brown instead of black like the adult, with a little ashy grey, showing the adult plumage: lores and feathers above and below the eye whitish: under surface of body ashy grey, whiter on the cheeks and throat.

The depth of grey shading on the adult bird varies greatly. The most intensely black individuals are those from Gaboon, and there is scarcely any grey or brown shades on their plumage.

Hab. Nearly the whole of Africa.

a. Ad. sk.	Senegal.	Riocour Coll.
b, *c*. Ad. et imm. sk.	Senegambia.	Governor Rendall [C.].
d. Ad. sk.	Senegambia.	Purchased.
e. Ad. sk.	Senegambia.	Shelley Coll.
f. Imm. sk.	Elmina, Gold Coast, April 10 (*H. F. Blissett*).	Shelley Coll.
g. Ad. sk.	Ancobra River.	Sir R. Burton and Commander Cameron [P.].
h. Ad. sk.	Magua River (*H. T. Ussher*).	Shelley Coll.
i. Ad. sk.	Gaboon.	Shelley Coll.
k. Ad. sk.	Gaboon (*Duchaillu*).	Tweeddale Coll.
l. Ad. sk.	Muschra Req., Equatorial Africa, March.	F. Bohndorff [C.].
m. Ad. sk.	Benguela.	Monteiro Coll.
n. ♀ ad. sk.	Rio Coroca, Mossamedes, Jan. (*Anchieta*).	Shelley Coll.
o. Ad. sk.	Cape Colony (*Butler*).	Shelley Coll.
p. Ad. sk.	Cape Colony.	F. Thackeray, Esq. [P.].
q. Pull. st.	Cape Colony.	Sir A. Smith [C.].
r. Ad. sk.	Natal (*T. Ayres*).	Gurney Coll.
s. Ad. sk.	Potchefstroom, Transvaal.	F. A. Barratt, Esq.
t, *u*. ♀ ad. et imm. sk.	Potchefstroom, Sept., Jan. (*T. Ayres*).	Gurney Coll.
v. ♀ ad. sk.	Umzeila's Country (*W. Ayres*).	Gurney Coll.
w. Ad. sk.	Makalaka Country.	Dr. Bradshaw [C.].
x. Ad. sk.	Zambesi (*Dr. Meller*).	Tweeddale Coll.
y. Ad. sk.	Zambesi.	Sir J. Kirk [P.].
z–*a'*. Ad. sk.	Mpimbi, Upper Shiré River, Feb. 27 (*A. Whyte*).	H. H. Johnston, Esq., C.B. [P.].
b'. Ad. sk.	Dar-es-salaam (*Sir J. Kirk*).	Shelley Coll.
c'. Ad. sk.	Pangani River (*Sir J. Kirk*).	Shelley Coll.
d', *e'*. ♂ ♀ ad. sk.	Jipi.	F. J. Jackson, Esq. [P.].

38. AMAURORNIS.

	Type.
Amaurornis, *Reichenb. Natürl. Syst. Vög.* p. xxi (1852)	A. olivacea.
Erythra, *Reichenb.* t. c. p. xxi	A. phœnicura.
Pisynolimnas, *Heine, in Heine & Reichen. Nomencl. Mus. Hein.* p. 317 (1890)	A. phœnicura.

Range. Indian Peninsula and Ceylon to China, and throughout the Indo-Chinese countries to Malacca and the Philippines, thence through the Moluccas to N.E. Australia and New Britain.

Key to the Species.

a. No white on forehead or face; fore-neck and breast grey.

a'. Throat grey like the breast (whitish in young birds only); vent and under tail-coverts perceptibly vinous or chestnut.

a''. Larger: darker and more olive above; dark slaty grey below; reddish colour on under tail-coverts not pronounced ..... *olivacea*, p. 153.

b''. Smaller: browner above, especially on lower back and rump; light ashy grey below; reddish colour on vent and under tail-coverts strongly pronounced ..... *moluccana*, p. 153.

b'. Throat white; no vinous colour on the vent and under tail-coverts ..... *akool*, p. 155.

b. Throat and breast white; lower flanks and vent chestnut; forehead white (adults), or like the crown (young) ..... *phœnicura*, p. 156. / *insularis*, p. 162.

1. Amaurornis olivacea.

Gallinula olivacea, *Meyen, Nova Acta C. L.-C. Acad. Nat. Cur.* xvi. *Suppl.* i. p. 109, pl. xx. (1834: Manila); *Gray, List Gralle Brit. Mus.* p. 123 (1844: Manila); *id. Gen. B.* iii. p. 599 (1845); *id. Hand-l. B.* iii. p. 66, no. 10505 (1871).

Amaurornis olivacea, *Reichenb. Natürl. Syst. Vög.* p. xxi (1852); *Bp. C. R.* xliii. p. 600 (1856); *Walden, Tr. Z. S.* ix. p. 231, pl. xxxiii. fig. 2 (1875); *Tweedd. P. Z. S.* 1877, p. 702 (Monte Alban), p. 768 (Cebu); *id. P. Z. S.* 1878, p. 345 (S. Leyte, July); *Steere, List B. & Mamm. Exped. Philipp.* p. 26 (1890; Luzon, Siquijor); *Blasius, J. f. O.* 1890, p. 145 (Mindanao).

Adult male. Dark slaty grey, the thighs entirely slaty grey, without the pale vinous isabelline inner face seen in the other species, and with the under tail-coverts dark rufous or rufous brown: "bill light green; feet yellowish brown; iris bright blood-red" (*A. H. Everett*). Total length 11·8 inches, culmen 1·4, wing 6·5, tail 2·45, tarsus 2·35, middle toe and claw 2·5.

Adult female. Similar in colour to the male: "bill grass-green; feet dull brownish yellow; iris bright blood-red or crimson" (*A. H. Everett*). Total length 10·5 inches, culmen 1·45, wing 6, tail 1·9, tarsus 2·35, middle toe and claw 2·6.

Hab. Philippine Islands.

a. Ad. sk.	Philippine Islands.	Tweeddale Coll.
b. Ad. sk.	Manila, June 14 (*H. Cuming*).	Gould Coll.
c, d. ♂ ♀ ad. sk.	Monte Alban, Luzon, Feb. (*A. H. Everett*).	Tweeddale Coll.
e, f. ♂ ♀ ad. sk.	Cebu, March.	Tweeddale Coll.
g. ♂ ad. sk.	Boac, Marinduque, May.	E. L. Moseley, Esq. [C.].
h, i. ♂ ♀ ad. sk.	Amparo, S. Leyte, July (*A. H. Everett*).	Tweeddale Coll.
k. ♂ ad. sk.	Catbalogan, Samar, April 14.	E. L. Moseley, Esq. [C.].
l. ♀ ad. sk.	Ayala, Mindanao, Oct. 24.	E. L. Moseley, Esq. [C.].

2. Amaurornis moluccana.

Gallinula olivacea, *Scal.* (*nec Meyen*), *Mus. Pays-Bas.* Ralli, p. 43 (1865: Ternate, Halmahera); *Gray, Hand-l. B.* iii. p. 66, no. 10505 (1871); *Rosenb. Reist. naar Geelvinkb.* p. 9 (1875); *id. Malay Arch.* p. 407 (1879).

Porzana moluccana, *Wall. P. Z. S.* 1865, p. 480 (Amboina, Ternate).
Gallinula ruficrissa, *Gould, Ann. & Mag. Nat. Hist.* (4) iv. p. 110 (1869: Cape River, Queensland); *id. Suppl. B. Austr.* pl. 79 (1869); *Gray, Hand-l. B.* iii. p. 67, no. 10510 (1871); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 193 (1877: N. Australia), p. 395 (Port Moresby); *id. P. Z. S.* 1877, p. 344 (Brisbane); *Sharpe, Journ. Linn. Soc.* xiii. p. 505 (1877: Pt. Moresby); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 199 (1878); *id. op. cit.* iii. p. 298 (1879: S.E. New Guinea), iv. p. 102 (1880: Pt. Moresby); *North, op. cit.* (2) ii. p. 446 (1887: egg); *Ramsay, Tab. List Austr. B.* p. 21 (1880); *North, Nests & Eggs Austr. B.* p. 326 (1890).
Rallina moluccana, *Gray, Hand-l. B.* iii. p. 58, no. 10394 (1871).
Erythra moluccana, *Salvad. Ann. Mus. Genov.* vii. p. 795 (1875), x. p. 164 (1877).
Gallinula frankii, *Schl. Notes Leyd. Mus.* i. p. 163 (1879); *Salvad. Atti R. Accad. Sci. Torino*, xiv. p. 945 (1879).
Amaurornis moluccana, *Salvad. Atti R. Accad. Sci. Torino*, xiv. p. 944 (1879); *Scl. P. Z. S.* 1879, pp. 447, 451 (Duke of York Isl.), 1880, p. 65; *Salvad. Ann. Mus. Genov.* xviii. p. 321 (1882); *id. Orn. Papuasia*, iii. p. 276 (1882); *Blasius u. Nehrk. Verh. z.-b. Ges. Wien*, xxxii. p. 431 (1882: Amboina); *Ramsay, Proc. Linn. Soc. N. S. W.* viii. p. 665 (1882: St. Anna, Solomon Arch.); *Meyer, Sitz. Abhandl. Ges. Isis, Dresden*, 1884, Abth. i. p. 55 (Siao, Gt. Sanghir); *Pleske, Bull. Akad. St. Pétersb.* xxix. p. 536 (1884: Ternate); *Blasius, Ornis*, iv. p. 638 (1888: Siao); *North, Proc. Linn. Soc. N. S. W.* (2) ii. p. 446 (1887: New Britain; egg); *Salvad. Agg. Orn. Papuasia*, iii. p. 197 (1891).
Amaurornis olivacea (*nec Meyen*), *Finsch, Vög. der Südsee*, p. 21 (1881: New Britain).

Adult male. General colour above dark olive-brown, including the head; the lower back, rump, and upper tail-coverts rather more ruddy brown; wing-coverts like the back, but somewhat ashy round the bend of the wing; bastard-wing, primary-coverts, and quills dusky brown, externally olive-brown, the innermost secondaries exactly like the back; tail-feathers dark brown, marked with olive-brown; a faintly indicated supra-loral spot of dull whitish; lores and base of cheeks black; sides of the face, cheeks, throat, and under surface of body slaty grey, the sides of the body marked with olive-brown; the flanks clearer brown; lower abdomen and vent vinous isabelline, as also the thighs; under tail-coverts and sides of vent deeper and more sandy buff; under wing-coverts and axillaries ashy olive-brown; quills dusky brown below: "bill greenish, yellowish towards the forehead; feet greenish; iris chestnut" (*O. Beccari*). Total length 10·8 inches, culmen 1·4, wing 5·75, tail 2·2, tarsus 2·2, middle toe and claw 2·35.

Young birds seem to be rather duller in colour and to have the throat whitish.

Hab. Molucca Islands and New Guinea to New Britain, Duke of York Island, and N.E. Australia.

a. Ad. sk.	Batchian.	Tweeddale Coll.
b. Ad. sk.	Halmahéra.	W. Wilson Saunders, Esq. [P.].
c. Ad. sk.	Ternate.	Wallace Coll.

d. ♂ ad. sk.	Mysol, July 27 (*Hoedt*).	Tweeddale Coll.
e. Ad. sk.	Rockingham Bay, Queensland.	Gould Coll.
f. Imm. sk.	Thirsty Sound, Rockingham Bay (*J. T. Cockerell*).	Salvin-Godman Coll.
g. ♀ imm. sk.	Duke of York Island, Aug.	Rev. G. Brown [C.].
h. ♀ ad. sk.	Kabahadai, New Britain.	Rev. G. Brown [C.].
i. ♂ ad. sk.	Kabahadai, New Britain, Feb. (*G. Brown*).	Tweeddale Coll.
k, *l*. ♂ ♀ ad. sk.	New Britain, June (*Dr. Kleinschmidt*).	Sharpe Coll.

3. Amaurornis akool.

Rallus niger, *Frankl.* (*nec Lath.*) *P. Z. S.* 1831, p. 124.

Porzana akool, *Sykes*, *P. Z. S.* 1832, p. 164 (Deccan); *Blyth*, *Cat. B. Mus. As. Soc.* p. 284 (1849: Chaibasa, Calcutta); *Jerd. B. Ind.* iii. p. 722 (1864); *Blyth*, *Ibis*, 1867, p. 171; *Hume*, *Nests & Eggs*, *Ind. B.* p. 602 (1873); *Adam*, *Str. F.* i. p. 398 (1873: Sambhur); *Butler*, *Str. F.* iv. p. 21 (1876: Mt. Aboo), v. p. 224 (1877: Milana); *Ball*, *Str. F.* vii. p. 229 (1878: Ganges to Godaveri); *Hume*, *t. c.* p. 489 (Calcutta); *id. op. cit.* viii. p. 113 (1879); *Butler*, *Cat. B. Sind*, *etc.* p. 67 (1879: Deesa, breeding in August); *id. Cat. B. S. Bomb. Pres.* p. 110 (1880: not seen); *Davidson*, *Str. F.* x. p. 322 (1882: W. Khandeish); *Swinh. & Barnes*, *Ibis*, 1885, p. 135 (Mhow); *McGregor*, *Str. F.* x. p. 441 (1887: Belgaum, breeding); *Taylor*, *t. c.* p. 466 (Manzeerabad, breeding); *Hume*, *Str. F.* xi. p. 328 (1888: N. Khasia Hills); *Oates*, *ed. Hume's Nests & Eggs Ind. B.* iii. p. 396 (1890); *Barnes*, *Journ. Bomb. Soc. N. H.* vi. pl. to p. 129 (1891: egg).

Gallinula modesta, *Swains. An. in Menag.* p. 348 (1837).

Rallus griseopectus, *Gray*, *List Grallæ Brit. Mus.* p. 117 (1844: nom. nudum).

Ortygometra griseopectus, *Hodgs. Icon. ined. in Brit. Mus.*, *Grallæ*, App. pl. 183 (no. 929); *Gray*, *Cat. Mamm. etc. Nepal pres. Hodgs.* p. 75 (1863).

Corethrura akool, *Gray*, *Gen. B.* iii. p. 595 (1846).

Corethrura modesta, *Gray*, *t. c.* p. 595 (1846).

Hypotænidia akool, *Bp. C. R.* xliv. p. 599 (1856).

Ortygometra akool, *Gray*, *Hand-l. B.* iii. p. 62, no. 10454 (1871).

Gallinula (Amaurornis) coccineipes, *Slater*, *Ibis*, 1891, p. 44 (Swatow).

Gallinula coccineipes, *Styan*, *Ibis*, 1891, pp. 235, 501 (Shanghai); *De La Touche*, *Ibis*, 1892, p. 493, pl. xii. (Swatow, Tayang Hills).

Adult male. General colour above uniform olive-brown, the head and neck like the back; wing-coverts like the back; bastard-wing, primary-coverts, and quills dusky brown, externally chocolate-brown: the inner secondaries olive like the back; lores, eyebrows, sides of face, and under surface of body dark slaty grey; fore part of cheeks and throat white; lower abdomen and vent slightly more vinaceous; sides of body and under tail-coverts dark olive-brown, as also the under wing-coverts: "bill greenish; legs and feet fleshy brown or livid purple; iris brown" (*T. C. Jerdon*). Total length 10·5 inches, culmen 1·25, wing 5, tail 2·3, tarsus 1·85.

The type of *Amaurornis coccineipes* has been kindly lent to me by

the Rev. H. H. Slater. I find that this bird is not to be specifically separated from *A. akool*, being alike in plumage, but just a trifle larger in size. Total length 10·5 inches, culmen 1·25, wing 5·15, tail 2·3, tarsus 1·95, middle toe and claw 2·1.

Adult female. Similar to the male in colour: "bill green; the culmen dark brown; the tip of the lower mandible lavender; feet dull lake-red; iris crimson" (*A. E. Butler, MSS.*). Total length 10 inches, culmen 1·3, wing 4·7, tail 2·1, tarsus 1·9.

Hab. Indian Peninsula generally, ranging eastward to Assam and the Khasia Hills.

a. Ad. sk.	India.	J. R. Reeves, Esq. (Type of *R. griseopectus.*)
b, c. ♂ ♀ ad. sk.	Deesa, Aug., Sept. (*E. A. Butler*).	Hume Coll.
d. Ad. sk.	North-west India (*Griffith*).	India Museum.
e. Ad. sk.	Rurki, N.W. Provinces.	Tweeddale Coll.
f. ♀ ad. sk.	Mount Aboo, May 2 (*E. A. Butler*).	Hume Coll.
g, h. ♂ ad.; *i–m.* ♀ ad. et juv. sk.	Sambhur, Jan., April, July, Dec. (*R. M. Adam*).	Hume Coll.
n. Ad. sk.	Jhansie, Aug. 7.	Hume Coll.
o–q. Ad. sk.	Delhi, Jan., March (*C. T. Bingham*).	Hume Coll.
r. Ad. sk.	Cashmere, May 5.	Hume Coll.
s. Ad. sk.	Dehra Dhoon.	Tweeddale Coll.
t. Ad. sk.	Dehra Dhoon.	Hume Coll.
u. ♀ ad. sk.	Sewalik Hills, March (*Dr. Scott*).	Tweeddale Coll.
v. ♂ ad. sk.	Kumaon, Jan. 28 (*G. King*).	Hume Coll.
w. Ad. sk.	Kumaon (*Strachey*).	India Museum.
x. Ad. sk.	Etawah.	Hume Coll.
y. Ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
z, a'. Ad. sk.	Darjiling Terai.	Hume Coll.
b'. Ad. sk.	Bhotan Doars, Jan. (*L. Mandelli*).	Hume Coll.
c'. Ad. sk.	Assam (*A. W. Chennell*) *.	Tweeddale Coll.
d', e'. Ad. sk.	Behar.	Hodgson Coll.
f', g'. ♂ ♀ ad.; *h', i'.* Pull. sk.	Saugor, Jan., Aug.	Hume Coll.
k'. ♀ ad. sk.	Depalpur, Jan. 9.	Col. Swinhoe [P.].
l', m'. Ad. st.	Gwalior.	C. Maries, Esq. [P.].
n'. Ad. sk.	Deccan (*Burgess*).	Gould Coll.
o'. Ad. sk.	Deccan (*Colonel Sykes*).	India Museum.
p'. Ad. sk.	Western Ghâts (*Coussmaker*).	Gould Coll.

4. Amaurornis phœnicura.

Poule Sultane de la Chine, *Daubent. Pl. Enl.* ix. pl. 896.
La Poule Sultane brune, *Buff. H. N. Ois.* viii. p. 204 (1781).
Rallus phœnicurus, *Forster, Zool. Ind.* p. 19, pl. 9 (1781: Ceylon); *Gm. Syst. Nat.* p. 715 (1788).

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* ? Khasia Hills: *cf.* Hume, Str. F. xi. p. 328.

Fulica chinensis, *Bodd. Tabl. Pl. Enl.* p. 54 (1783).
Red-tailed Gallinule, *Lath. Gen. Syn.* iii. pt. 1, p. 259 (1785).
Gallinula erythrura, *Bechst. Kurze Uebers. Vög.* p. 471 (1811) *Reichenb. Handb. Fulicariæ*, tab. xc. figs. 1116, 1117 (1850).
Porphyrio phœnicura, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 29 (1819).
Gallinula javanica, *Horsf. Trans. Linn. Soc.* xiii. p. 196 (1821 : Java) ; *Sykes, P. Z. S.* 1832, p. 164 (Deccan).
Rallus sumatranus, *Raffl. Trans. Linn. Soc.* xiii. p. 328 (1821).
Gallinula leucomelæna, *S. Müll. Verh. nat. Gesch. Land- en Volkenk.* p. 158 (1839–44 : Timor) ; *Gray, Gen. B.* iii. p. 599 (1845) ; *Schl. Mus. Pays-Bas*, Ralli, p. 42 (1865 : Timor, Bouru) ; *Gray, Hand-l. B.* iii. p. 67, no. 10509 (1871).
Zapornia thermophila, *Hodgs. Icon. ined. in Brit. Mus., Grallæ*, pl. 215 (no. 759) ; *id. in Gray's Zool. Misc.* p. 86 (1844).
Gallinula phœnicura, *Gray, Gen. B.* iii. p. 599 (1845) ; *id. Cat. Mamm. & B. pres. Hodgs.* p. 143 (1846) ; *id. List Grallæ etc. Brit. Mus.* p. 123 (1848) ; *Motley & Dillw. Contr. Nat. Hist. Labuan*, p. 60 (1855) ; *Swinh. Ibis*, 1863, p. 427 (Formosa) ; *Jerd. B. Ind.* iii. p. 720 (1864) ; *Schl. Mus. Pays-Bas*, Ralli, p. 41 (1865) ; *Godwin-Austen, J. A. S. Beng.* xxxix. p. 254 (1870 : Mymensing) ; *Blanf. op. cit.* xl. p. 276 (1871 : Wardha Valley) ; *Swinh. Ibis*, 1870, p. 364 (Hainan) ; *id. P. Z. S.* 1871, p. 414 (S. China, Formosa) ; *Holdsw. P. Z. S.* 1872, p. 476 (Ceylon) ; *Gray, Hand-l. B.* iii. p. 67, no. 10508 (1871) ; *Gould, B. Asia*, vii. pl. 67 (1872) ; *Hayes Lloyd, Ibis*, 1873, p. 418 (Kathiawar) ; *Hume, Nests & Eggs Ind. B.* p. 599 (1873) ; *Aitken, Str. F.* i. p. 424 (1873 : Bombay, breeding) ; *Hume Str. F.* iii. p. 187 (1875 : Upper Pegu) ; *Butler, Str. F.* iv. p. 21 (1876 : Mount Aboo) ; *Fairb. t. c.* p. 263 (Mahabaleshwur) ; *Hume & Davis. Str. F.* vi. p. 466 (1878 : Tenasserim) ; *Ball, Str. F.* vii. p. 229 (1878 : Ganges to Godavery) ; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlii. p. 112 (1882 : Java) ; *Murray, Vertebr. Faun. Sind*, p. 263 (1884) ; *Snellem. in Veth, Midden-Sumatra*, p. 50 (1885) ; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlix. p. 416 (1889) ; *Styan, Ibis*, 1891, pp. 329, 501 (Yangtze Basin) ; *Hartert, Ornis*, vii. p. 123 (1891 : Preanjer, W. Java).
Porzana phœnicura, *Blyth, Cat. B. Mus. As. Soc.* p. 284 (1849) ; *Swinh. Ibis*, 1860, p. 67 (Amoy), 1861, p. 57 (Canton) ; *Irby, t. c.* p. 246 (Oudh) ; *Sclat. P. Z. S.* 1863, p. 223 (Banjarmassing) ; *Schomb. Ibis*, 1864, p. 261 (Siam) ; *Blyth, Ibis*, 1867, p. 171 ; *Hume, Str. F.* 1873, p. 251 (Sind) ; *Blyth & Wald. B. Burm.* p. 161 (1875).
Erythra phœnicura, *Reichenb. Handb. Fulicariæ*, p. xxi (1852) ; *Bp. C. R.* xliii. p. 600 (1856) ; *Salvad. Ucc. Born.* p. 340 (1874) ; *Sharpe, P. Z. S.* 1875, p. 111 (Labuan) ; *Walden, Trans. Z. S.* viii. p. 94 (1872), ix. p. 229 (1875) ; *Morgan, Ibis*, 1875, p. 323 (Mysore) ; *Hume, Str. F.* v. p. 46 (1877 : Cachar) ; *Oates, t. c.* p. 165 (Pegu) ; *Butler, t. c.* p. 224 (Milana) ; *Tweedd. Ibis*, 1877, p. 327 (Lampong) ; *id. P. Z. S.* 1877, p. 833 (Butuan) ; *id. P. Z. S.* 1878, p. 953 (Zamboanga) ; *David & Oust. Ois. Chine*, p. 486 (1877) ; *Anders. Rep. Exped. Yunnan, Aves*, p. 691 (1878 : Bhamo) ; *Cripps, Str. F.* vii. p. 306 (1878 : Faridpur) ; *Legge, B. Ceylon*, p. 786 (1879) ; *Sharpe, P. Z. S.* 1879, p. 352 (Labuan) ; *Hume, Str. F.* viii. pp. 70 (Malacca), 113 ; *Doig, t. c.* p. 371 (E. Narra) ; *Butler, Cat. B. Sind, etc.* p. 67 (1879) ; *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 253 (1879 : Sumatra) ; *Meyer, Ibis*, 1879, p. 142 (Celebes) ; *Sharpe, t. c.* p. 271 (Borneo) ; *Butler, Cat. B. S. Bomb. Pres.* p. 80 (1880) ; *Vidal, Str. F.* ix. p. 87 (1880 : S. Koukau) ; *Bingham, t. c.* p. 197 (Thoungyeen) ;

Reid, Str. F. x. p. 73 (1881); *Wardlaw Ramsay, Tweedd. Mem.* p. 659 (1881); *Sharpe, P. Z. S.* 1881, p. 800 (Sandakan); *Müller, J. f. O.* 1882, p. 438 (Salanga); *Nichols. Ibis*, 1882, p. 65 (S.E. Sumatra); *Kelham, t. c.* p. 188 (Perak); *Davidson, Str. F.* x. p. 322 (1882: Khandeish): *Parker, Ibis*, 1883, pp. 194, 195 (Ceylon); *Davison, Str. F.* x. p. 415 (1883: Mysore); *Guillem. P. Z. S.* 1885, pp. 273 (Sula Isl.). 560 (Menado, Kema); *Büttik. Notes Leyden Mus.* ix. p. 80 (1886: W. Sumatra); *McGregor, Str. F.* x. p. 441 (1887); *Taylor, t. c.* p. 466 (Manzeerabad); *Hume, Str. F.* xi. p. 328 (1888: Manipur); *Everett, Journ. Str. Br. As. Soc.* 1889, p. 202 (Borneo); *Sharpe, Ibis*, 1890, pp. 145, 285 (Labuan); *Steere, List B. & Mamm. Steere Exped. Philipp.* p. 25 (1890: Siquijor, Marinduque); *Oates, ed. Hume's Nests & Eggs Ind. B.* iii. p. 391 (1890); *Reid, Cat. B. Lucknow Mus.* p. 254 (1890: Oudh).

Tribonyx erythrura, *Licht. Nomencl. Av.* p. 97 (1854).

Erythra leucomelæna, *Bp. C. R.* xliii. p. 600 (1856); *Guillem. P. Z. S.* 1885, p. 511 (Sumbawa); *Salvad. Ann. Mus. Genov.* viii. p. 385 (1876: Bouru).

Erythra major, *Bp. ut suprà.*

Erythra chinensis, *Bp. C. R.* xliii. p. 600 (1856).

Erythra javanica, *Bp. t. c.*

Erythra chinensis (sic), *Bp. t. c.*

Rallina phœnicura, *Wall. P. Z. S.* 1863, p. 487 (Timor).

Porzana, sp., *Scl. P. Z. S.* 1863, p. 223.

Rallus (Erythra) phœnicurus, *Martens, J. f. O.* 1866, p. 29 (Zamboanga).

Amaurornis phœnicura, *Sundev. Av. Meth. Tent.* p. 132 (1872); *Salvad. Orn. Pap.* iii. p. 278 (1882); *Blasius, Zeitschr.* ii. p. 311 (1885), iii. p. 158 (1886); *Salvad. Ann. Mus. Civic. Genov.* (2) iv. p. 562 (1887: Nias); *id. t. c.* p. 612 (Bhamo); *Blasius, Ibis*, 1888, p. 374; *id. Ornis*, iv. p. 319 (Palawan); *Salvad. & Gigl. Mem. R. Accad. Sci. Torino*, (2) xxxix. p. 142 (1888); *Whitehead, Ibis*, 1890, p. 60.

Gallinula phœnicura, var. leucomelæna, *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 91 (1876).

Erythrura phœnicura, *Oates, Handb. B. Brit. Burm.* ii. p. 348 (1883).

Amaurornis leucomelæna, *Salvad. Ann. Mus. Genov.* xviii. p. 321 (1882); *id. Orn. Papuasia*, iii. p. 278 (1882: Bouru).

Erythra leucomelæna, *Blasius* (*nec S. Müll.*), *J. f. O.* 1884, p. 215 (S.E. Borneo).

Pisynolimnas phœnicura, *Heine, in Heine & Reichen. Nomencl. Mus. Hein.* p. 317 (1890).

Adult male. General colour above dark slaty grey, with a slight olive tinge; lower back, rump, and upper tail-coverts dull brown; wing-coverts dark ashy grey; quills dusky brown, externally ashy; first primary white along the outer edge; tail dark brown; head and neck dark ashy; forehead, eyebrow, sides of face, sides of neck, and under surface of body pure white, separated from the grey of the upper surface by a black shade which commences behind the ear-coverts and extends to the sides of the body; the feathers on the sides of the breast particoloured, being black internally and white externally; sides of lower back, flanks, and under tail-coverts deep chestnut; the lower abdomen and thighs washed with light rufous; under wing-coverts and axillaries dark slate-colour; edge

of wing white, forming a little patch on the lower primary-coverts: "bill pea-green, with a bright orange-red spot at the base of the upper mandible; feet pale olivaceous yellow; iris dark maroon-brown" (*E. A. Butler*). Total length 12·5 inches, culmen 1·6, wing 6·5, tail 2·8, tarsus 2·12, middle toe and claw 2·8.

Adult female. Similar to the male in colour, but slightly smaller. Total length 11·5 inches, culmen 1·4, wing 6·3, tail 2·4, tarsus 2·1, middle toe and claw 2·5.

I entirely agree with Colonel Legge as to the characters of the young of this Water-Hen. The plumage is not only more olive-brown and the chestnut of the underparts paler in tint, but the brown of the crown is continued to the base of the bill, and in very young birds the sides of the face are also dusky brown, leaving the lores white; the white underparts are considerably obscured by dusky brown tips to the feathers, which have occasionally a barred aspect. I also agree with Colonel Legge that the bird from Timor (*Amaurornis leucomelæna*) is inseparable from the ordinary *A. phœnicura*. I have also seen a specimen in the Rothschild collection from Sumbawa (*Guillemard*), which is also quite similar to the ordinary type.

Hab. Nearly the whole of the Indian Peninsula and Ceylon, the Burmese countries, and entire Indo-Malayan region to Celebes, Southern China below the Yangtze River, and Formosa.

a–f. Ad. sk. [w. 5·7–65].	Ceylon (*S. Chapman & H. Nevill*).	Tweeddale Coll.
g, h. ♂ ♀ ad. sk. [w. 5·9–6·2].	Cotta, W.P. Ceylon, March 15 (*Hart*).	Hume Coll.
i. Ad. sk. [w. 6·1].	Madras (*Jerdon*).	Gould Coll.
k, l. ♂ ♀ ad. sk. [w. 6·7–6·2].	West Coast of Madras.	Hume Coll.
m, n. Ad. sk. [w. 6·0–6·1].	Malabar.	Tweeddale Coll.
o. ♂ ad. sk. [w. 6·7].	Belgaum, July 2 (*E. A. Butler*).	Hume Coll.
p. Ad. sk. [w. 6·5].	Deccan (*Sykes*).	India Museum.
q. ♀ juv. sk.	Bhadrachalan, N. of Godavery River, March 10.	W. T. Blanford, Esq. [P.].
r. ♂ ad. sk. [w. 6·5].	Seoni, C.P.	Hume Coll.
s. Ad. sk. [w. 6·1].	Saugor, July.	Hume Coll.
t–w. ♂ ♀ ad. sk. [w. 6·3–6·7].	Raipur, Jan.	Hume Coll.
x. ♂ ad. sk. [w. 6·7].	Dhulia, Khandeish, June 13 (*J. Davidson*).	Hume Coll.
y. ♀ ad. sk. [w. 6·1].	Roree, Sind (*Dr. Gould*).	India Museum.
z. Ad. sk. [w. 6·3].	Sind, Oct. 6 (*A. O. H.*).	Hume Coll.
a'. Ad. sk. [w. 6·6].	Mount Aboo, June 23 (*E. A. Butler*).	Hume Coll.
b'. Ad. sk. [w. 6·1].	Sambhur (*R. M. Adam*).	Hume Coll.
c'. Ad. sk.	Sambhur (*R. M. Adam*).	Seebohm Coll.
d'–f'. ♂ ♀ ad. sk. [w. 6·2–6·8].	Bareilly, May, June (*A. O. H.*).	Hume Coll.
g'. ♀ imm. sk. [w. 6·7].	Allahabad (*J. Cockburn*).	Hume Coll.

h', *i'*. Ad. sk. [w. 6·15–6·4].	Etawah, Feb., May.	Hume Coll.
k'–m'. ♀ ad. et imm. sk.	Futtehgurh district, Aug., Nov. (*A. Anderson*).	Seebohm Coll.
n', *o'*. Ad. sk. [w. 5·7–6·5].	Oudh.	Pinwill Coll.
p', *q'*. Ad. sk. [w. 6·7].	Oudh, Jan., Feb.	Hume Coll.
r'. Ad. sk. [w. 6·4].	Behar.	Hodgson Coll.
s', *t'*. Ad. sk. [w. 5·9–6·8].	Nepal.	Hodgson Coll.
u'–w'. Ad. sk. [w. 6·6].	Bhotan Doars, Jan. to April (*L. Mandelli*).	Hume Coll.
x'. ♂ ad. sk. [w. 6·1].	Barrackpur, Jan.	Col. Biddulph [C.].
y'. Ad. sk. [w. 6·0].	Calcutta, Feb. 10.	Hume Coll.
z'–b''. Ad. sk. [w. 5·8–6·6].	Dacca, March.	Hume Coll.
c''. Ad. sk. [w. 6·2].	Assam (*McClelland*).	India Museum.
d''. ♀ ad. sk. [w. 6·8].	Sadhya, April (*J. Cockburn*).	Hume Coll.
e''. Juv. sk.	Dibrughur, Aug. 8 (*J. R. Cripps*).	Hume Coll.
f''. Ad. sk. [w. 5·9].	Cachar (*J. Inglis*).	Hume Coll.
g''. ♀ ad. sk. [w. 6·2].	N. Khasia Hills, Feb. (*A. W. Chennell*).	Tweeddale Coll.
h''–k''. ♂ ad. [w. 6·4–6·8]; *l''*. ♀ ad. sk. [w. 6·3].	Manipur, Feb., March (*A. O. H.*).	Hume Coll.
m''–o''. ♂ ♀ ad. sk. [w. 5·9–6·2].	Lower Pegu, Jan. to March.	Oates Coll.
p''–s''. ♂ ad. [w. 6·0–6·6]; *t''–w''*. ♀ ad. [w. 5·8–6·2]; *x''*, *y''*. ♂ ♀ juv. sk.	Tonghoo, Nov. to June (*R. G. W. R.*).	Tweeddale Coll.
z''. Ad. sk. [w. 7·0].	Great Coco Island, March (*W. Davison*).	Hume Coll.
*a*³. ♂ ad. sk. [w. 6·15].	Pahpoon, Tenasserim, Jan. 6 (*W. Davison*).	Hume Coll.
*b*³. ♂ ad. sk. [w. 6·7].	Kanee, Houngthraw River, March (*W. Davison*).	Hume Coll.
*c*³. ♂ ad. sk. [w. 6·6].	Wimpong, Thatone, Dec. 20 (*W. Davison*).	Hume Coll.
*d*³–*f*³. ♂ ad. sk. [w. 6·0–6·4].	Tavoy, March, April (*W. Davison*).	Hume Coll.
*g*³, *h*³. ♂ ♀ ad. sk. [w. 6·35–6·5].	Amherst, June, July (*W. Davison*).	Hume Coll.
*i*³. ♀ ad. sk. [w. 6·4].	Houngthraw, Feb. 27 (*W. Limborg*).	Tweeddale Coll.
*k*³. Ad. sk. [w. 6·0].	Kyaeen, May 2 (*J. Darling*).	Hume Coll.
*l*³. ♀ ad. sk. [w. 5·8].	Bankasoon, May (*W. Davison*).	Hume Coll.
*m*³–*o*³. ♀ ad. [w. 6·15–6·5]; *p*³. ♂ ad. sk. [w. 6·55].	Salang, Feb., March (*J. Darling*)	Hume Coll.
*q*³, *r*³. Ad. [w. 5·5–6·9]; *s*³. Juv. sk.	Penang (*Dr. Cantor*).	India Museum.

t^3. Ad. sk. [w. 6·8].	Province Wellesley (*Dr. Cantor*).	India Museum.
u^3, v^3. ♂ ♀ ad. sk. [w. 6·95–6·8].	Klang, Feb., March (*W. Davison*).	Hume Coll.
w^3. ♀ ad. sk. [w. 6·4].	Jaram, Salangore, Dec. 26 (*W. Davison*).	Hume Coll.
x^3. Ad. sk. [w. 6·1].	Malacca.	Pinwill Coll.
y^3. Ad. sk. [w. 6·9].	Malacca (*Dr. Maingay*).	Tweeddale Coll.
z^3. Ad. sk. [w. 6·6].	Malacca, July (*W. Davison*).	Hume Coll.
a^4. Ad.; b^4. Juv. sk. [w. 6·3].	Malacca.	W. Harvey, Esq. [P.].
c^4, d^4. ♂ ad. [w. 5·55–5·85]; e^4. ♀ ad. sk. [w. 6·2].	Siedjoedjong, Sumatra, Aug., Oct. (*C. Bock*).	Tweeddale Coll.
f^4. Ad. sk. [w. 5·9].	Lampong, S.E. Sumatra (*E. C. Buxton*).	Tweeddale Coll.
g^4. Ad. sk. [w. 6·3].	Acheen, Sumatra, Feb. 2 (*W. Davison*).	Hume Coll.
h^4. Ad. sk.	Java (*Horsfield*).	India Museum.
i^4. Juv. sk.	Java.	Tweeddale Coll.
k^4. ♂ ad. sk. [w. 6·1].	Java (*Diard*).	Salvin-Godman Coll.
l^4. Ad. sk.	Sarawak.	Wallace Coll.
m^4. Ad. sk. [w. 5·7].	Labuan (*J. Motley*).	Tweeddale Coll.
n^4. Juv. sk.	Labuan.	Governor Ussher [C.].
o^4, p^4. Ad. sk. [w. 5·4].	Labuan.	Sir Hugh Low [C.].
q^4. Ad. sk. [w. 5·35].	Lumbidan, N.W. Borneo, Sept.	A. H. Everett, Esq [C.].
r^4. Ad.; s^4. Juv. sk. [w. 5·6].	Banjarmassing (*J. Motley*).	Wallace Coll.
t^4. ♀ ad. sk. [w. 5·8].	E. Timor.	Wallace Coll.
u^4, v^4. Ad. sk. [w. 5·9–6·6].	Celebes.	Baron von Hügel [P.].
w^4. ♀ ad. sk. [w. 5·8].	Celebes.	Salvin-Godman Coll.
x^4, y^4. Ad. sk. [w. 5·7].	Menado, N. Celebes.	Tweeddale Coll.
z^4. ♀ ad. sk. [w. 5·7].	Menado, N. Celebes.	Wallace Coll.
a^5–e^5. ♂ ♀ ad. sk. [w. 5·8–6·2].	Makassar.	Wallace Coll.
f^5. Ad. sk.	Makassar (*A. R. Wallace*).	Seebohm Coll.
g^5. ♀ ad. sk. [w. 5·5].	Zamboanga, Mindanao, March (*A. H. Everett*).	Tweeddale Coll.
h^5, i^5. ♂ ♀ ad. sk. [w. 5·35–5·65].	Butuan, May (*A. H. Everett*).	Tweeddale Coll.
k^5, l^5, m^5. Ad. sk. [w. 5·8–6].	Cochin China.	M. Pierre [P.].
n^5. Ad. sk. [w. 5·8].	Bangkok, Siam.	Tweeddale Coll.
o^5. ♂ ad. sk. [w. 5·9].	Nahconchaisee, Siam, July (*L. C. Layard*).	Tweeddale Coll.
p^5. Ad. sk.	Siam (*Sir R. Schomburgk*).	Seebohm Coll.
q^5, r^5, s^5. ♀ ad. sk. [w. 6–6·3].	Kiukiang, China, May.	F. W. Styan, Esq. [P.].
t^5. Ad. sk. [w. 6·2].	Fokien, China.	Gould Coll.
u^5. Ad. sk. [w. 5·75].	Canton.	Tweeddale Coll.
v^5. Ad. sk. [w. 6·7].	Hankow, summer (*R. Swinhoe*).	Tweeddale Coll.

*w*⁵, *x*⁵. Ad. sk.	Hankow, summer (*R. S.*).	Seebohm Coll.
*y*⁵. Ad. sk. [w. 6·6].	Formosa, March (*R. S.*).	Salvin-Godman Coll.
*z*⁵. Ad. sk. [w. 6·65].	Formosa (*R. S.*).	Hume Coll.
*a*⁶–*d*⁶. Ad. sk.	Formosa, Dec., March (*R. S.*).	Seebohm Coll.

Subsp. *a*. **Amaurornis insularis.**

Gallinula phœnicura (*nec Forst.*), *Hume, Str. F.* ii. p. 300 (1874); *Walden, Ibis*, 1874, p. 417.

Adult male. Similar to *E. phœnicura*, but everywhere much darker, being dingy olive above, and having the sides of the breast blackish with only a slight wash of dull olive, and scarcely any appearance of slaty grey; the white on the forehead and eyebrow much more extended than in true *A. phœnicura*. Total length 12 inches, culmen from base of feathers 1·9, wing 7, tail 2·6, tarsus 2·4, middle toe 2·7.

Adult female. Similar to the male in colour. "Bill pale green, the frontal shield and base of culmen deep red; feet deep yellow; iris dull pale red" (*W. Davison*). Total length 12 inches, culmen from base of feathers 1·75, wing 6·4, tail 2·7, tarsus 2·35, middle toe and claw 2·75.

In another female specimen from Camorta the bill is marked "lemon-yellow" and the feet "chrome-yellow."

Hab. Andaman Islands and Nicobars.

a. ♀ ad. [w. 6·5]; *b*. Ad. sk. [w. 6·3].	South Andamans, March, April (*R. G. W. R.*).	Tweeddale Coll.
c, *d*. ♂ ad. [w. 6·6–6·8]; *e*. ♀ ad. sk. [w. 6·1].	Port Blair, July, Aug. (*R. J. Wimberley*).	Hume Coll.
f. ♂ ad. [w. 7]; *g*, *h*. ♀ ad. sk. [w. 5·9–6·2].	Aberdeen, April (*W. Davison*).	Hume Coll.
i. ♀ ad. sk. [w. 6·2].	South Andamans, April 30 (*W. Davison*).	Hume Coll.
k. ♀ ad. sk. [w. 6·3].	Katchull, Nicobars, March 17 (*A. O. H.*).	Hume Coll.
l, *m*. ♀ ad. sk. [w. 6·3–6·6].	Camorta, Feb. (*A. O. H.*).	Hume Coll.
n. ♀ ad. sk. [w. 6·3].	Trinkut Is., Jan. 31.	Tweeddale Coll.

39. ROUGETIUS.

	Type.
Rougetius, *Bp. C. R.* xliii. p. 599 (1856)	R. rougeti.
Calamodromus, part., *Reichen. in Heine & Reichen. Nomencl. Mus. Hein.* p. 322 (1890).	

Range. Confined to North-eastern Africa.

1. Rougetius rougeti.

Rallus rougeti, *Guérin, Rev. Zool.* 1843, p. 322; *Des Murs, in Lefebvre's Voy. Abyss.* p. 167, pl. xiii. (1845); *Guérin & Lafr. in Ferr. & Galin. Voy. Abyss.* iii. p. 253 (1847); *Blanf. Geol. & Zool.*

Abyss. p. 432 (1870: Lake Ashangi); *Salvad. Ann. Mus. Civic. Genov.* (2) i. p. 225 (1884), iv. p. 313 (1888).
Rallus abyssinicus, *Rüpp. Syst. Uebers.* p. 127, tab. 46 (1845).
Eulabeornis abyssinica, *Gray, Gen. B.* iii. p. 595 (1846); *id. Hand-l. B.* iii. p. 56, no. 10371 (1871).
Rougetius abyssinicus, *Bp. C. R.* xliii. p. 599 (1856).
Rallina abyssinica, *Schl. Mus. Pays-Bas*, Ralli, p. 16 (1865).
Eulabeornis rougeti, *Heugl. Orn. N.O.-Afr.* iii. p. 1248 (1871).
Calamodromus rougeti, *Heine & Reichen. Nomencl. Mus. Hein.* p. 322 (1890).

Adult. General colour above dark olive-brown, more dusky on the lower back, rump, and upper tail-coverts; wings rather darker than the back, with a slight bronzy lustre on the quills; tail-feathers blackish; crown of head like the back, the hind neck a little lighter olive; lores, sides of face, and ear-coverts dark brown, with a slight rufous tinge on the lores; cheeks, sides of neck, and under surface of body deep vinous chestnut, paler and more isabelline on the throat; sides of body, flanks, and thighs dusky olive-brown, with a slight rufous tinge; under tail-coverts white; under wing-coverts and quill-lining bronzy brown: "bill dusky red; feet dusky reddish; iris bright chestnut-red" (*von Heuglin*). Total length 11 inches, culmen 1·4, wing 5·2, tail 2·9.

Hab. Abyssinia and Shoa.

a. Ad. sk.	Abyssinia.	Shelley Coll.
b. ♀ ad. sk.	Lake Ashangi, Abyssinia, May 6.	W. T. Blanford, Esq. [C.]
c. ♀ ad. sk.	Lake Ashangi, May 4 (*W. T. B.*).	Tweeddale Coll.
d. Ad. st.	Abyssinia.	Purchased.

40. NEOCREX.

	Type.
Neocrex, *Scl. & Salv. P. Z. S.* 1868, p. 459	N. erythrops

Range. The same as that of the single species.

1. Neocrex erythrops.

Porzana erythrops, *Scl. P. Z. S.* 1867, p. 343, tab. 21; *Scl. & Salv. P. Z. S.* 1868, p. 459; *Scl. P. Z. S.* 1869, p. 148 (Lima); *Pelz. Orn. Bras.* p. 317 (S. Vicente, Matogrosso); *Scl. & Salv. Nomencl Av.* p. 140 (1873); *Hudson, P. Z. S.* 1876, p. 105 (Buenos Aires: breeding); *Tacz. P. Z. S.* 1877, p. 330 (Lima); *id. Orn. Pérou*, iii. p. 325 (1886).
Porzana schomburgki (*nec Cab.*), *Schl. Mus. Pays-Bas*, Ralli, p. 37 (1865).
Aramides erythrops, *Gray, Hand-l. B.* iii. p. 62, no. 10449 (1871).

Adult female. General colour above olive-brown, a little darker on the lower back, rump, and upper tail-coverts; wing-coverts like the back; bastard-wing, primary-coverts, and quills more ashy brown; the secondaries like the back; tail brown; forehead and sides of crown, sides of face, and under surface of body clear slaty grey; centre of crown and nape olive-brown like the back; lores

and feathers below the eye dusky slate-colour, with a faint supraloral streak of isabelline; chin white; lower abdomen dusky brown, with narrow white bars; lower flanks and under tail-coverts blackish, barred with white, more broadly on the latter; under wing-coverts and axillaries dusky brown, narrowly barred with white. Total length 7 inches, culmen 0·9, wing 4, tail 1·35, tarsus 1·15, middle toe and claw 1·3.

Hab. South America from Brazil and the Argentine Republic to Peru, and north to Venezuela.

a. Ad. sk.	Lima, Peru (*W. Nation*).	Salvin-Godman Coll. (Type of species.)
b. ♀ ad. sk.	Lima (*W. Nation*).	Salvin-Godman Coll.
c. Ad. sk.	Venezuela (*Spence*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Valencia, Venezuela, July (*A. Goering*).	Salvin-Godman Coll.

41. TRIBONYX*.

	Type.
Tribonyx, *Du Bus, Bull. Acad. Roy. Bruxelles*, vii. p. 212 (1840)	T. mortieri.
Brachyptrallus, *Lafr. Rev. Zool.* iii. p. 232 (1840)	T. mortieri.

Range. The same as that of the single species.

1. Tribonyx mortieri.

Tribonyx mortieri, *Du Bus, Bull. Acad. Roy. Bruxelles*, vii. p. 214, pl. ii (1840); *id. Esq. Orn.* livr. i. pl. v. (1845); *Gray, Gen. B.* iii. p. 599 (1845); *Gould, B. Austr.* vi. pl. 71 (1848); *Reichenb. Vög. Neuholl.* p. 240 (1850); *id. Handb., Fulicariæ*, tab. cccix. figs. 2458–2459 (1852); *Gould, Handb. B. Austr.* ii. p. 324 (1865); *Gray, Hand-l. B.* iii. p. 66, no. 10493 (1871); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 199 (1878); *id. Tab. List Austr. B.* p. 21 (1888); *North, Nests & Eggs Austr. B.* p. 324, pl. xix. fig. 4 (1890).
Brachyptrallus ralloides, *Lafr. Rev. Zool.* iii. p. 232 (1840).
Tribonyx gouldi, *Scl. Ann. Nat. Hist.* (3) xx. p. 122 (1867); *id. P. Z. S.* 1867, p. 816, cum fig.

Adult. General colour above ruddy brown, with a strong wash of olive, the head and neck like the back; scapulars and lower back and rump mottled with a few ochraceous spots on the ends of the feathers; wing-coverts greenish grey washed with olive, the median series with longitudinal white spots towards the end of the feathers; lesser coverts ruddy brown like the back; bastard-wing, primary-coverts, and quills dusky brown, externally ruddy brown, the inner secondaries like the back; upper tail-coverts and tail-feathers brown, the latter black at the ends; sides of face and sides of neck dark olive-brown; under surface of body greenish grey, with a wash of olive; sides of body and flanks browner; thighs grey; on the sides of the body a large patch of white; under tail-coverts black, the outer ones varied with white; under wing-coverts olive-brown, with white tips: "bill greenish yellow; legs and feet leaden yellow;

* The following is an extinct species from Queensland:—
Tribonyx effluxus, *De Vis, Proc. Linn. Soc. N. S. W.* (2) vi. p. 439 (1892).

iris orange-red" (*J. Gould*). Total length 14 inches, culmen 1·55, wing 7·8, tail 3·4, tarsus 3·25, middle toe and claw 3·1.

Hab. Victoria, South Australia, and Tasmania.

a, b. Ad. st.	Australia.	Purchased.
c. Ad. sk.	Australia.	General Hardwicke [P.].
d. Ad. sk.	Tasmania.	Hume Coll.
e. Ad. sk.	Ouse River, Tasmania.	Hume Coll.

42. MICROTRIBONYX.

Type.

Microtribonyx, *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxix (Jan. 1893) ..... M. ventralis.

Range. Confined to Australia.

1. Microtribonyx ventralis.

Gallinula ventralis, *Gould, P. Z. S.* 1836, p. 85.

Tribonyx ventralis, *Gould, in Grey's Trav. Austr.* App. ii. p. 420; *id. B. Austr.* vi. pl. 72 (1845); *Gray, Gen. B.* iii. p. 599 (1845); *Reichenb. Vög. Neuholl.* p. 151 (1849); *id. Handb., Fulicariæ*, tab. ccciv. fig. 2460 (1852); *Gould, Handb. B. Austr.* ii. p. 325 (1865); *Sel. P. Z. S.* 1867, p. 816 (Tasmania); *Gray, Hand-l. B.* iii. p. 65, no. 10492 (1871); *Ramsay, P. Z. S.* 1877, p. 344 (Queensland); *id. Proc. Linn. Soc. N. S. W.* ii. p. 21 (1878); *id. op. cit.* ii. p. 172 (1888: Derby); *id. Tab. List Austr. B.* p. 21 (1888); *North, Nests and Eggs Austr. B.* p. 324, pl. xvii. fig. 4 (1890).

Microtribonyx ventralis, *Sharpe, Bull. Brit. Orn. Club*, no. v. p. xxix (1893).

Adult male. General colour above olive-brown, with a somewhat greenish tinge; wings browner than the back, the first primary edged with white; tail blackish brown; crown of head a little browner than the back; lores, region of the eye, sides of face, and throat dusky slate-colour; remainder of the under surface from the fore neck downwards dark slaty blue; abdomen and thighs blackish; under tail-coverts black; sides of body brown, as also the under wing-coverts and axillaries; sides of upper breast washed with olive-green; long feathers of lower breast with large ovate spots at the ends: "upper mandible beautiful pea-green, becoming rather paler at the tip; base of lower mandible light reddish orange, the tip like that of the other; legs and feet deep brick-red; iris fine orange" (*J. Gould*). Total length 10·5 inches, culmen 1·25, wing 8·7, tail 3·4, tarsus 2·4, middle toe and claw 2·5.

Hab. Western and Southern Australia, re-occurring in the Port Denison district and the Gulf of Carpentaria.

a. Ad. sk.	At sea, between Tasmania and Auckland Islands.	Antarctic Expedition.
b. Ad. sk.	South Australia.	C. D. E. Fortnum, Esq. [P.].
c. ♀ ad. sk.	South Australia (*J. Gould*).	Sir G. Grey [P.].
d. Ad. sk.	Port Lincoln.	J. Gould, Esq. [C.].
e. Ad. sk.	River Darling.	Gould Coll.

f. Ad. sk.	Queensland (*J. T. Cockerell*).	Salvin-Godman Coll.
g, *h*. Ad. sk.	South Queensland.	Tweeddale Coll.
i, *k*. ♂ ♀ ad. sk.	N.W. Australia (*T. H. Bowyer Bower*).	Capt. Bowyer Bower [P.].
l. Skeleton.	Australia.	Purchased.

43. PAREUDIASTES.

Type.

Pareudiastes, *Hartl. & Finsch, P. Z. S.* 1871, p. 25 .... P. pacificus.

Range. Confined to the Samoan Islands.

1. Pareudiastes pacificus.

Pareudiastes pacificus, *Hartl. & Finsch, P. Z. S.* 1871, p. 25, pl. 2 (Savai: Rarotonga); *Finsch, J.f. O.* 1872, pp. 33, 54 (Savai); *Whitmee, P. Z. S.* 1874, pp. 184, 185 (habits).

Adult. General colour above dark olive, with a somewhat greenish tinge; wing-coverts like the back; quills black, externally somewhat greenish; lower rump, upper tail-coverts, and tail black; head rather browner than the back; a line over the eye, lores, sides of face, and throat blackish, with a slight ashy tinge; lower throat, sides of neck, fore neck, and breast bluish slate-colour; remainder of under surface dark olive-greenish; under tail-coverts, under wing-coverts, and quill-lining black. Total length 9 inches, culmen with frontal shield 1·5, wing 4·6, tail 2·35, tarsus 1·45, middle toe and claw 1·6.

Hab. Samoa Islands.

a. Ad. sk.	Samoa.	Old Coll.
b. Ad. sk.	Samoa.	Rev. S. Whitmee [C.].

44. PORPHYRIORNIS.

Type.

Porphyriornis, *Allen, Bull. Am. Mus. Nat. Hist.* iv. art. vi. p. 57 (1892) ..... P. comeri.

Range. Confined to Tristan d'Acunha and Gough Island.

1. Porphyriornis nesiotis.

Gallinula nesiotis, *Scl. P. Z. S.* 1861, p. 261, pl. xxx.; *Gray, Hand-l. B.* iii. p. 66, no. 10501 (1871); *Scl. P. Z. S.* 1878, p. 577; *id. Rep. Voy. 'Challenger,'* ii. *Birds*, p. 113 (1880).

Porphyriornis nesiotis, *Allen, Bull. Am. Mus. Nat. Hist.* iv. art. vi. p. 58 (1892).

Adult (type of species). General colour above dark olive-brown; wing-coverts and inner secondaries like the back; quills and tail-feathers blackish, the first primary edged with white; head and neck all round and entire under surface black, with a few narrow ovate streaks on the sides of the body; under tail-coverts white, the central ones black; under wing-coverts and axillaries black like the breast, with a little white along the edge of the wing: "bill crimson, yellow at the tip; feet yellowish" (*P. L. Sclater*). "A red

garter above the heel" (*J. Wolf* ex spec. viv.). Total length 10 inches, culmen with frontal shield 1·65, wing 5·3, tail 2·2, tarsus 3·2, middle toe and claw 2·7.

Hab. Island of Tristan d'Acunha.

a. Ad. sk.	Tristan d'Acunha.	P. L. Sclater, Esq. [P.]. (Type of species.)
b. Ad. sk.	Tristan d'Acunha.	Zoological Society.
c. Bones of trunk.		P. L. Sclater, Esq. [P.].

2. Porphyriornis comeri.

Porphyriornis comeri, *Allen*, *Bull. Am. Mus. Nat. Hist.* iv. art. vi. p. 57 (1892: Gough Isl.).

Adult. Similar to *P. nesiotis*, but having scarcely any white on the outer edge of the first primary, and narrower and smaller streaks of white on the flanks. "Tip of bill bright yellow, scarlet between the eyes; legs and feet yellow, with reddish spots" (*G. Comer*). Total length 11 inches, culmen and frontal shield 1·6, wing 5·6, tail 2·2, tarsus 1·95, middle toe and claw 2·6.

Hab. Gough Island.

a. Ad. sk.	[Gough Island.]	Shelley Coll.

45. GALLINULA*.

	Type.
Fulica, pt., *auct. antiq.*	
Gallinula, *Briss. Orn.* vi. p. 3 (1760)	G. chloropus.
Hydrogallina, *Lacép. Mém. de l'Inst.* iii. p. 518 (1800–1801)	G. chloropus.
Stagnicola, *Brehm*, *Vög. Deutschl.* p. 702 (1831)	G. chloropus.

Range. Over the greater portion of the Old and New Worlds.

Key to the Species.

a. No broad white streaks on the sides of the body.
  a'. Under surface of body light grey; light colour of toes above yellow .... *tenebrosa*, p. 168.
  b'. Dark slaty grey below; light colour of toes above red, like the tarsi ..... *frontata*, p. 168.

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* I have not been able to determine the following species:—

GALLINULA LEPIDA.

Gallinula lepida, *Brügg. Abhandl. nat. Ver. Bremen*, v. p. 91 (1877: patr. ign.).

The following are extinct Gallinules:—

GALLINULA STRENUIPES.

Gallinula strenuipes, *De Vis*, *Proc. Linn. Soc. N. S. W.* iii. pp. 1283–1286, pls. 34, 35.

From Queensland.

GALLINULA PERALATA.

Gallinula peralata, *De Vis*, *op. cit.* (2) vi. p. 440, pl. xxiv. figs. 3 *a*, 3 *b* (1892).

From Queensland.

b. Sides of body broadly streaked with white.
c'. Base of lower mandible red; toes darker than tarsi.
a''. Frontal shield rounded at top ..... *chloropus*, p. 169.
b''. Frontal shield truncated ..... *galeata*, p. 177. / *sandwichensis*, p. 180.
d'. Base of under mandible yellow; toes yellow, like the tarsi: size small ..... *angulata*, p. 181.

1. Gallinula tenebrosa.

Gallinula tenebrosa, *Gould*, *P. Z. S.* 1846, p. 20 (S. Australia); *id. B. Austr.* vi. pl. 73 (1846); *Gould, Handb. B. Austr.* ii. p. 328 (Upper Hunter; N. S. Wales; Murray River); *Gray, Hand-l. B.* iii. p. 66, no. 10946 (1871); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 193 (1887: breeding); *id. t. c.* p. 218 (Sydney); *id. Proc. Linn. Soc. N. S. W.* ii. p. 199 (1878: distr. in Australia), iv. p. 162 (1880), vii. p. 56 (1883); *id. Tab. List Austr. B.* p. 21 (1888); *North, Proc. Linn. Soc. N. S. W.* (2) i. p. 1168 (1886); *id. Nests & Eggs Austr. B.* p. 325 (1890).

Adult. General colour above dusky olive-brown, with an ashy shade on the scapulars and mantle; wing-coverts like the back; bastard-wing, primary-coverts, and quills dusky brown, with a light ashy shade externally; the inner secondaries like the back; tail-feathers black; head and neck all round as well as the under surface of body dark slaty grey, a little more dingy on the head and throat; under tail-coverts white, slightly tinged with buff, the long centre ones black; under wing-coverts and axillaries dark slaty grey like the breast: "base of bill blood-red, the tip greenish yellow; frontal plate orange; above the knee a garter of yellow and scarlet; joints of the feet and legs green; under surface of the legs and feet olive; frontal plates of tarsi yellow, those nearest the knee stained with scarlet; iris olive" (*J. Gould*). Total length 14·5 inches, culmen with frontal shield 1·8, wing 8, tail 2·8, tarsus 2·3, middle toe and claw 3·6.

Young. Browner than the adult, and light ashy grey below; the throat dull whitish, the abdomen also whitish.

Occasionally some slight evidences of white shaft-lines are to be seen in individuals in this species; and in one example from Southern Australia they are well marked.

Hab. Eastern and Southern Australia; Southern New Guinea.

a. Ad. sk.	Australia.	Zoological Society.
b. Ad. sk.	South Australia.	Gould Coll.
c, *d*, *e*. Ad. sk.; *f*, *g*. Juv. sk.	Queensland.	Salvin-Godman Coll.

2. Gallinula frontata.

Gallinula tenebrosa, pt., *Bp. C. R.* xliii. p. 600 (1856).
Gallinula hæmatopus, *Temm. MSS. in Mus. Lugd.*; *Bp. C. R.* xliii. p. 600 (1856, descr. nullâ); *Schl. Mus. Pays-Bas, Ralli*, p. 44 (1865: Celebes; Amboina); *id. Dierentuin*, p. 263 (1872); *Gray*,

Hand-l. B. iii. p. 66, no. 10497 (1871); *Salvad. Ann. Mus. Civic. Genov.* vii. p. 680 (1875).

Gallinula frontata, *Wall. P. Z. S.* 1863, pp. 35 (Bouru), 487 (Flores); *Finsch, Neu-Guinea*, p. 181 (1865); *Wald. Trans. Z. S.* viii. p. 93 (1872); *Salvad. Ann. Mus. Genov.* vii. p. 680 (1875), ix. p. 48 (1876: Hall Bay); *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 90 (1876: Celebes); *Meyer, Ibis*, 1879, p. 142 (Lakes of Lino, Tondano, and Limbotto); *Salvad. Ann. Mus. Genov.* xviii. p. 321 (1882); *id. Orn. Papuasia, &c.* iii. p. 279 (1882); *Blasius, J. f. O.* 1884, p. 219 (S.E. Borneo; breeding); *Kutter, t. c.* p. 225; *Blasius, Zeitschr. ges. Orn.* iii. p. 156 (1886); *Everett, Journ. Straits Branch As. Soc.* 1889, p. 202.

Gallinula tenebrosa (*nec Gould*), *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 398 (1877: Port Moresby), iii. p. 298 (1878: Laloke River), iv. p. 102 (1879).

Adult male. Similar to *G. tenebrosa*, but darker grey above and below, and distinguished by the red colour of the toes resembling that of the tarsi: "bill and frontal shield red, excepting the terminal third which is yellow; feet red, the joints greenish; bare part of tibia olive-green behind, the hinder part of the tarsi dusky lead-colour" (*Wallace*): "iris black" (*D'Albertis*). Total length 14 inches, culmen and frontal shield 1·75, wing 7, tail 2·5, tarsus 2·15, middle toe and claw 3·4.

Adult female. Similar to the male in colour of plumage. Total length 13·5 inches, culmen with frontal shield 2·01, wing 7, tail 2·4, tarsus 1·4, middle toe and claw 3·3.

Hab. Australia, New Guinea, and the Moluccas, as far as Celebes; S.E. Borneo.

a. Ad. sk.	Celebes.	Wallace Coll.
b. Ad. sk.	Menado.	Tweeddale Coll.
c. ♂ ad. sk.	Makassar.	Wallace Coll.
d. ♀ ad. sk.	Bouru.	Wallace Coll. (Type of species.)
e. Ad. sk.	Ceram.	Wallace Coll.
f. Ad. sk.	[Moluccas.]	Tweeddale Coll.
g. Ad. sk.	Port Moresby.	A. Goldie [C.].

3. Gallinula chloropus.

The Water-Hen or Moor-Hen, *Albin, Nat. Hist. B.* ii. p. 66, pl. 72 (1738).

The More-Hen, *Albin, op. cit.* iii. p. 86, pl. 91 (1740).

La Poule d'eau, *Briss. Orn.* vi. p. 3, pl. 1. figs. 1, 2 (1760); *Daubent. Pl. Enl.* ix. pl. 877; *Buff. Hist. Nat. Ois.* viii. p. 171, pl. 15 (1781).

La petite Poule d'eau, *Briss. t. c.* p. 6 (1760).

La grande Poule d'eau, *Briss. t. c.* p. 9 (1760).

Fulica chloropus, *Linn. Syst. Nat.* i. p. 258 (1766); *Scop. Ann. I.* p. 106 (1769); *Gm. Syst. Nat.* i. p. 698 (1788); *Pall. Zoogr. Rosso-Asiat.* ii. p. 157 (1811).

Fulica fusca, *Linn. Syst. Nat.* i. p. 257 (1766); *Gm. Syst. Nat.* i. p. 697 (1788).

La Poulette d'eau, *Buff. Hist. Nat. Ois.* viii. p. 177 (1781).

La Glout, *Buff. Hist. Nat. Ois.* viii. p. 181 (1781).

Common Gallinule, *Lath. Gen. Syn.* iii. pt. i. p. 258 (1785).
Brown Gallinule, *Lath. t. c.* p. 260 (1785).
Piping Gallinule, *Lath. t. c.* p. 267 (1785).
Fulica fistulans, *Gm. Syst. Nat.* i. p. 702 (1788).
Gallinula chloropus, *Lath. Ind. Orn.* ii. p. 773 (1790); *Vieill. N. Dict. d'Hist. Nat.* xii. p. 404 (1817); *Temm. Man. d'Orn.* ii. p. 393 (1820); *Roux, Orn. Provenç.* pls. 234, 235 (1825); *Werner, Atlas, Gralles*, pl. 38 (1827); *Ménétr. Cat. rais. Cauc.* p. 52 (1832); *Gould, B. Eur.* iv. pl. 342 (1837); *Naum. Vög. Deutschl.* ix. p. 587, Taf. 240 (1838); *Crespon, Orn. Gard*, p. 453 (1840); *Keys. & Blas. Wirb. Eur.* p. 205 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 276 (1840); *Selys-Longch. Faune Belge*, p. 118 (1842); *Schl. Rev. Crit.* p. ciii (1844); *Muhle, Beitr. Orn. Griechenl.* p. 92 (1844); *Gray, List Grallæ &c. Brit. Mus.* pt. iii. p. 122 (1844); *Hodgs. Icon. ined. in Brit. Mus. Grallæ*, pl. 118 (nos. 633, 634); *id. in Gray's Zool. Misc.* p. 86 (1844); *Gray, Gen. B.* iii. p. 599 (1845); *Rüpp. Syst. Uebers.* p. 128 (1845); *Hewits. Eggs Br. B.* ii. p. 325, pl. xci. fig. 1 (1846); *Gray, Cat. Mamm. &c. Nepal. pres. Hodgs.* p. 143 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 286 (1849); *Thomps. B. Irel.* ii. p. 327 (1849); *Kjærb. Orn. Dan. Suppl.* tab. xxxviii. fig. 5 (1852); *Macg. Br. B.* iv. p. 547 (1852); *Schl. Vog. Nederl.* pls. 252, 253 (1854); *Heugl. Syst. Uebers.* p. 64 (1856); *Cass. in Perry's Exped.* ii. p. 245 (1856); *Hartl. Orn. W.-Afr.* p. 244 (1857); *Grill, Zool. Anteckn.* pp. 11, 54 (1859: Karroo); *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 491 (1859); *Salvin, Ibis*, 1859, p. 361 (E. Atlas); *Gurney, t. c.* p. 249 (Natal); *Leith Adams, P. Z. S.* 1859, p. 188 (Cashmere); *Schrenck, Reis. Amur-L.* p. 527 (1859); *Linderm. Vög. Griechenl.* p. 180 (1860); *Powys, Ibis*, 1860, p. 349 (Epirus); *Sundev. Svensk. Fogl.* pl. xlv. fig. 4 (c. 1860); *Schl. Dier. Nederl. Vog.* pl. 26. figs. 2, 2 *a* (1861); *Swinh. Ibis*, 1861, p. 56 (Hongkong); *Irby, t. c.* p. 246; *Hartl. J. f. O.* 1861, p. 272 (Bissao); *id. Faun. Madag.* p. 81 (1861); *Swinh. Ibis*, 1862, p. 307 (Amoy); *Gould, B. Gt. Br.* iv. pl. 851 (1862); *Swinh. Ibis*, 1863, p. 427 (Formosa); *Gray, List Br. B.* p. 180 (1863); *E. Newt. Ibis*, 1863, pp. 358, 359; *Jerd. B. Ind.* iii. p. 718 (1864); *Schl. Mus. Pays-Bas, Ralli*, p. 45 (1865); *Filippi, Viagg. Pers.* p. 352 (1865); *Gigl. Ibis*, 1865, p. 62 (Pisa: winter); *Swinh. t. c.* p. 355 (Formosa); *More, t. c.* p. 440; *Schl. P. Z. S.* 1866, p. 425; *Layard, B. S. Afr.* p. 341 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 262 (1867); *Drake, Ibis*, 1867, p. 425 (Tangier); *Loche, Expl. Sci. Algér., Ois.* ii. p. 347 (1867); *A. & E. Newt. Ibis*, 1867, pp. 358, 359; *Chapm. Trav. S. Afr.* ii. App. p. 421 (1868); *Schl. & Poll. Faune Madag., Ois.* p. 136 (1868); *Dybowski & Parvex, J. f. O.* 1868, p. 338; *Borggr. Vogelf. Norddeutschl.* p. 107 (1869); *Doderl. Avif. Sicil.* p. 201 (1869); *Droste, Vogelw. Bork.* p. 137 (1869); *Elwes & Buckley, Ibis*, 1870, p. 332 (Macedonia); *Godman, Azores*, pp. 36, 41 (1870); *Fritsch, Vög. Eur.* tab. 35. figs. 1, 2 (1870); *Bettoni, Ucc. nidif. Lomb.* pl. 96 (1870); *Godw.-Aust. J. A. S. Beng.* xxxix. p. 274 (1870: Khasia Hills); *Blanf. Zool. Abyss.* p. 434 (1870: Lake Ashangi); *Finsch, Tr. Z. S.* vii. p. 300 (1870: Senafé); *id. & Hartl. Vög. Ostafr.* p. 787 (1870); *Heugl. Orn. N.O.-Afr.* ii. pt. i. p. 1224 (1871); *Gray, Hand-l. B.* iii. p. 66, no. 10495 (1871); *Salvad. Faun. Ital., Ucc.* p. 232 (1871); *Swinh. P. Z. S.* 1871, p. 414 (China: resident); *R. Gray, B. W. Scotl.* p. 335 (1871); *Saunders, Ibis*, 1871, p. 225; *Holdsw. P. Z. S.* 1872, p. 475; *Gurney, in Anderss. B. Dam.-Ld.* p. 323 (1872); *Harting, Handb. Br. B.* p. 58 (1872); *Shelley, B. Egypt*, p. 275

(1872); *Collett, Norges Fugle*, p. 60; *Hume & Henders. Lahore to Yark.* p. 293 (1873); *Hume, Nests & Eggs Ind. B.* p. 597 (1873); *id. Str. F.* i. p. 250 (1873: Sindh); *Adam, t. c.* p. 398 (Sambhur); *Brooke, Ibis*, 1873, p. 336 (Sardinia); *Severtz. Turkest. Jevotn.* p. 69 (1873); *Ball, Str. F.* ii. p. 32 (1874: Chota Nagpur); *Stoliczka, t. c.* p. 461 (Wooler Lake: breeding); *Saxby, B. Shetl.* p. 225 (1874); *Ayres, Ibis*, 1874, p. 107 (Mooi River); *Hume, Str. F.* iii. p. 187; *Cordeaux, Ibis*, 1875, p. 186 (Heligoland); *Swinh. t. c.* p. 134 (Chefoo); *Irby, B. Gibr.* p. 144 (1875); *Blyth, B. Burm.* p. 162 (1875); *Wald. Tr. Z. S.* ix. p. 229 (1875: Luzon); *Danf. & Harvie-Brown, Ibis*, 1875, p. 418 (Transylvania); *Fallon, Ois. Belg.* p. 184 (1875); *Wharton, Ibis*, 1876, p. 27 (Corsica); *Barratt, t. c.* p. 213 (S.E. Africa); *Swinhoe, t. c.* p. 336 (Hakodadi); *Dresser, t. c.* p. 413 (Turkestan: breeding); *Blanf. East. Persia*, ii. p. 288 (1876); *Tacz. Bull. Soc. Zool. France*, i. p. 260 (1876: Darasun and Kultuk); *Butler, Str. F.* iv. p. 20 (1876: Deesa); *Scully, t. c.* p. 192 (Turkestan: breeding); *Godw.-Austen, J. A. S. Beng.* xlv. pt. 2, p. 84 (1876: Dafla Hills); *Hartl. Vög. Madag.* p. 347 (1877); *Tacz. Bull. Soc. Zool. France*, ii. p. 160 (1877: Poland); *David & Oust. Ois. Chine*, p. 485 (1877); *Hume, Str. F.* v. p. 46 (1877: Caehar); *Oates, t. c.* pp. 165, 233; *Butler, t. c.* p. 224 (Deesa: breeding); *Blakist. & Pryer, Ibis*, 1878, p. 225 (Japan); *Prjev. in Rowley's Orn. Misc.* iii. p. 94 (1878); *Anders. Rep. Zool. Exped. Yun-nan, Aves*, p. 692 (1878); *Hume & Davison, Str. F.* vi. p. 466 (1878); *Davids. & Wenden, Str. F.* vii. p. 90 (1878: Deccan); *Ball, t. c.* p. 229 (Ganges to Godavery); *Cripps, t. c.* p. 306 (Faridpur); *Legge, B. Ceylon*, p. 781 (1879); *Hume, Str. F.* viii. p. 113 (1879); *Butler, Cat. B. Sind &c.* p. 67 (1879); *Doiy, Str. F.* viii. p. 371 (E. Narra: breeding); *Dresser, B. Eur.* vii. p. 313, pl. 503 (1879); *Butler, Cat. B. S. Bomb. Pres.* p. 80 (1880); *Vidal, Str. F.* ix. p. 87 (1880: S. Konkan); *Barnes, t. c.* p. 459 (1881: S. Afghanistan); *Parker, t. c.* p. 483; *Reid, Str. F.* x. p. 73 (1881: Lucknow); *Bidd. Ibis*, 1881, p. 98 (Gilgit); *Scully, t. c.* p. 590; *Bocage, Orn. Angola*, p. 482 (1881); *Blakist. & Pryer, B. Japan*, p. 124 (1882); *Davids. Str. F.* x. p. 322 (1882); *Davison, t. c.* p. 415 (breeding in Nilghiris, Wynaad, Mysore); *B. O. U. List Br. B.* p. 151 (1883); *Booth, Rough Notes*, iii. (1883); *Saunders, ed. Yarr. Br. B.* iii. p. 164 (1883); *Seebohm, Ibis*, 1883, p. 27 (Caucasus); *Parker, t. c.* p. 195; *Oates, Handb. B. Brit. Burm.* ii. p. 347 (1883); *Chapm. Ibis*, 1844, p. 97; *Clarke, t. c.* p. 148 (Slavonia: breeding); *Seeb. t. c.* p. 178 (Yokohama); *Saunders, t. c.* p. 388 (Pyrenees); *C. H. T. Marshall, t. c.* p. 245 (Chamba); *Sharpe, ed. Layard's B. S. Afr.* p. 623 (1884); *Gurney, Tr. Norf. & Norw. Soc.* iii. p. 581 (hairy variety); *Murray, Vertebr. Faun. Sind*, p. 262 (1884: breeding); *Boyd. Consp. Av. Imp. Ross.* p. 57 (1884); *Tristr. Faun. & Flor. Palest.* p. 126 (1884); *Blakist. Amend. List B. Japan*, p. 13 (1884); *Seeb. Hist. Br. B.* ii. p. 557 (1884); *Reid, Ibis*, 1885, p. 252 (Morocco); *Whitehead, t. c.* p. 44 (Corsica: breeding); *Swinh. & Barnes, t. c.* p. 135 (Mhow: breeding); *Fischer, J. f. O.* 1885, p. 117 (Zanzibar, Bagamoyo); *Büchner, t. c.* p. 206 (S. Petersburg); *Parker, Ibis*, 1886, p. 187 (Ceylon: breeding); *Sharpe, t. c.* pp. 489 (Fao), 498 (Bushire); *Hartert, J. f. O.* 1886, p. 608 (Lower Benué); *Stejn. Pr. U.S. Nat. Mus.* ix. p. 406 (1886: Hakodadi); *id. op. cit.* x. p. 415 (1887: Liu-kiu); *Gigl. Avif. Ital.* p. 352, tav. 312 (1886); *Salvad. Elench. Vec. Ital.* p. 236 (1886); *Reichen. J. f. O.* 1887, p. 48 (Victoria Nyanza);

Backh. Ibis, 1887, p. 74; *Seeb. t. c.* p. 180 (Liu-kiu); *Tait, t. c.* p. 383 (Portugal: breeding); *McGregor, Str. F.* x. p. 441 (1887: S. Mahratta country); *Reid, Ibis*, 1888, p. 76 (Gran Canaria); *Guillem. t. c.* p. 110 (Cyprus); *Hume, Str. F.* xi. p. 328 (1888: Manipur); *Salvad. Ann. Mus. Genov.* (2) iv. p. 313 (1888: Shoa); *Koenig, J. f. O.* 1888, p. 275 (Tunis); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 48 (Tschinas); *Reichen. Syst. Verz. Vög. Deutschl.* p. 43 (1889); *Gigl. Avif. Ital.* 1st *Resoc.* p. 548 (1889); *St. John, Ibis*, 1889, p. 178 (Candahar); *Lilford, t. c.* p. 337 (Cyprus); *Oates, ed. Hume's Nests & Eggs Ind. B.* iii. p. 389 (1890); *Koenig, J. f. O.* 1890, pp. 313, 454 (Madeira); *Seeb. B. Japan. Emp.* p. 360 (1890); *Meade-Waldo, Ibis*, 1890, p. 429 (Teneriffe); *Brusina, Orn. Croat.* p. 84 (1890); *Steere, List Mamm. & B. Philipp.* p. 25 (1890: Luzon); *Frivaldsky, Av. Hung.* p. 154 (1891); *Reiser, Vogelsamml. Landesm. Sarajero*, p. 118 (1891); *Styan, Ibis*, 1891, pp. 329, 501 (Yangtze basin: breeding); *Sharpe, Rep. 2nd Yark. Miss., Aves*, p. 146 (1891: Cashmere); *Gätke, Vogelw. Helgoland*, p. 533 (1891); *Bocage, Jorn. Lisb.* (2) ii. p. 84 (1891).

Gallinula fusca, *Lath. Ind. Orn.* ii. p. 771 (1790); *Vieill. N. Dict. d'Hist. Nat.* xii. p. 407 (1817); *Brehm, Vög. Deutschl.* p. 705 (1831).

Gallinula fistulans, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 405 (1817); *Brehm, Vög. Deutschl.* p. 705 (1831).

Gallinula orientalis, *Horsf. Tr. Z. S.* xiii. p. 195 (1820); *Raffl. t. c.* p. 329; *Salvad. Ucc. Born.* p. 342 (1874); *Blasius, J. f. O.* 1884, p. 218 (S.E. Borneo: breeding); *Everett, Journ. Straits Br. R. Asiat. Soc.* 1889, p. 202; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlix. p. 416 (1889: Sumatra).

Crex chloropus, *Licht. Verz. Doubl.* p. 79 (1823).

? Gallinula ardesiaca, *Vieill. Gal. Ois.* ii. p. 173, pl. 268 (1825).

Rallus chloropus, *Savi, Orn. Tosc.* ii. p. 382 (1829).

Stagnicola chloropus, *Brehm, Vög. Deutschl.* p. 706 (1831); *Radde, Orn. Cauc.* p. 378 (1884); *id. Ornis*, iii. p. 496 (1887).

Stagnicola septentrionalis, *Brehm, Vög. Deutschl.* p. 704 (1831).

Stagnicola minor, *Brehm, t. c.* p. 706 (1831).

Gallinula flavipes, *Brehm, t. c.* p. 705 (1831).

Gallinula akool (*nec Sykes*), *Jerd. Madr. Journ.* xi. p. 206 (1840).

The Moor-Hen, *Yarr. Hist. Br. B.* iii. p. 28 (1843).

Gallinula parvifrons, *Blyth, J. A. S. Beng.* xii. p. 180 (1843).

Gallinula burnesi, *Blyth, J. A. S. Beng.* xxiii. p. 737 (1854); *Jerd. B. Ind.* p. 719 (1864); *Blyth, Ibis*, 1867, p. 171; *Hume, Nests & Eggs Ind. B.* p. 599 (1873); *id. Str. F.* viii. p. 113 (1879).

Stagnicola parvifrons, meridionalis, brachyptera, *Brehm, Vogelf.* p. 331 (1855).

Gallinula minor, *Hartl. J. f. O.* 1860, p. 341 (Senegal); *Olph.-Galliard, Faune Orn. Eur. Occid.* fasc. xvi. p. 50 (1887).

Gallinula pyrrhorhoa, *A. Newt. P. Z. S.* 1861, p. 18 (Mauritius), 1863, p. 458; *E. Newt. Ibis*, 1861, p. 275; *Roch & E. Newt. Ibis*, 1863, p. 174; *E. Newt. t. c.* p. 458; *Scl. P. Z. S.* 1863, p. 174; *Gray, Hand-l. B.* iii. p. 66, no. 10499 (1871); *Hartl. Vög. Madag.* p. 348 (1877).

Gallinula chloropus, var. pyrrhorhoa, *Grand. Rev. et Mag. de Zool.* 1867, p. 5; *Milne-Edwards & Grandid. Hist. Nat. Madag., Ois.* pp. 241, 241 *a*, pl. 240 (1882).

Adult male. General colour above dark olive-brown, with re-

flections of ruddy brown; scapulars like the back; wing-coverts slightly more ashy and washed with olive-brown, especially towards the ends; bastard-wing, primary-coverts, and quills blackish brown, externally washed with ashy brown, the outer bastard wing-feathers and first primary externally edged with white; the innermost secondaries more ruddy brown and washed with olive like the back; tail-feathers blackish, with a slight wash of olive-brown; crown of head and sides of face blackish, fading off into dark slaty grey on the sides of the neck and hind neck; throat also blackish, fading gradually off into dark slaty grey, the same as the rest of the under surface; the lower flanks washed with brown, the sides of the body broadly streaked with white, which occupies the greater part of the outer feathers; abdomen more or less varied with white edges to the feathers; under tail-coverts white, with the feathers of the vent and the long median tail-coverts black; under wing-coverts and axillaries ashy grey, tipped with white, the bend of the wing edged with white: "frontal shield and two thirds of the bill deep lake-red, the tip of the latter greenish yellow for about one third; legs olive-green, the broad scaling on the fore part of the tarsus, and the scales on the upper part of the toes, lemon-yellow; joint of heel dusky olive-green, with a shade of lemon-yellow immediately below the garter, which is dark lake-red; iris reddish" (*R. B. S., MSS.*). Total length 12·5 inches, culmen with frontal shield 1·55, wing 7·3, tail 2·9, tarsus 1·85, middle toe and claw 2·95.

Adult female. Similar to the male in colour, but having the white streaks on the flanks not quite so broad. Total length 11·5 inches, culmen with frontal shield 1·35, wing 6·4, tail 2·8, tarsus 1·7, middle toe and claw 2·6.

Young. Browner than the adult, the head a little more dusky brown than the back; sides of face dark brown; throat white, with dusky bases to the feathers; rest of under surface brown, the feathers edged with white; abdomen entirely white; the flank-stripes buffy white and very narrow: bill black, dull red along edge of tomium and on lower mandible; legs fleshy brown, darker on the tarsal joint and toes; claws light horn-brown.

The young bird gains the adult plumage in the following spring, by the shedding of the brown or whitish margins of the feathers of the under surface, so that the grey plumage of the adult gradually supervenes.

Specimens vary much in size, and those from the far east (*G. orientalis*) are decidedly smaller than those from Europe. This small race is also prevalent in China, but being approached in dimensions by many specimens from other parts of the Old World I cannot find adequate justification for the separation of *G. orientalis* even as a distinct race. The chief character for the separation of *G. pyrrhorhoa* of Madagascar is said to be the fulvescent tint of the under tail-coverts; but as this feature sometimes occurs in both young and old birds of the English Moorhen, I have been unable to consider *G. pyrrhorhoa* to be specifically distinct.

Hab. The greater part of Europe, Africa, and Asia.

a, *b*. ♂ ♀ ad. st.	Great Britain.	Purchased.
c. Imm. sk.	Great Britain (*H. B. Tristram*).	Tweeddale Coll.
d, *e*. Ad. et imm. sk.	Whitehill, N.B. (*R. G. W. R.*).	Tweeddale Coll.
f, *g*. ♂ ad. sk.	Chester, March 18.	Miss Trelawny [P.].
h. ♂ imm. sk.	Swithland Hall, Leicestershire, Jan.	W. R. Ogilvie-Grant, Esq. [P.].
i. Ad. sk.	Leicestershire.	Theodore Walker, Esq. [P.].
k, *l*. ♂ ♀ ad. st.	Leicestershire.	Theodore Walker, Esq. [P.].
m, *n*. Pull. st.	Cambridgeshire.	Mr. J. Baker.
o. ♂ ad. sk.	Somer Leyton, Norfolk, Jan.	Gould Coll.
p–*s*. Pull. sk.	Suffolk.	Dr. A. Günther [P.].
t. ♂ imm. sk.	Sandford, Oxfordshire, Feb. 4.	Sharpe Coll.
u. Pull. st.	Surbiton, Surrey.	Dr. A. Günther [P.].
v. Ad. hairy var. st.	Sandhurst, Wokingham.	F. Bond, Esq. [P.].
w. Pull. sk.	Near Maidenhead, Berks, May.	Gould Coll.
x, *y*. ♂ ad. et imm. sk.	Cookham, Berks, Sept., Dec. (*W. Briggs*).	Hume Coll.
z. Ad. st.	Cookham.	Mr. W. Briggs [P.].
a', *b'*. ♂ ♀ ad.; *c'*. Ad. sk.	Avington, Hants, Nov., Feb.	Shelley Coll.
d'. Imm. st.	Torquay, Devonshire.	C. Coningham, Esq. [P.].
e', *f'*. ♂ ad.; *g'*, *h'*. ♀ ad. et imm. sk.	St. Bride's, South Wales, Dec.	Hon. W. Edwardes [P.].
i'. Nestling sk.	Valkensward, Holland.	Salvin-Godman Coll.
k'. Ad. sk.	Athens.	Consul Merlin [P.].
l'. Imm. sk.	Anatolia, Asia Minor, Feb. (*C. G. Danford*).	Seebohm Coll.
m'. ♂ imm. sk.	Adalia, Dec. 20 (*C. G. D.*).	Seebohm Coll.
n'. Ad. sk.	Erzeroum, Sept. (*Dickson & Ross*).	Gould Coll.
o'. ♂ ad. sk.	Lake Ashanghi (8000 ft.), Abyssinia, May 4.	W. T. Blanford, Esq. [C.].
p'. ♂ ad. sk.	Senafé, May (*W. Jesse*).	Tweeddale Coll.
q'. ♀ imm. sk.	River Coroca, Benguela, Jan. (*Anchieta*).	Shelley Coll.
r'. Ad. sk.	Benguela.	Monteiro Coll.
s'. ♀ ad.; *t'*. ♀ imm. sk.	Potchefstroom, June, July (*T. Ayres*).	Gurney Coll.
u'. ♂ ad. sk.	Potchefstroom, July.	F. A. Barratt, Esq. [P.].
v'. Imm. sk.	Natal.	Gurney Coll.
w'. Ad. st.	Cape Colony.	Purchased.
x'. Ad. sk.	South Africa.	Purchased.
y', *z'*. Ad. sk.	Madagascar (*Van Dam*).	Shelley Coll.
a''. Imm. sk.	Madagascar (*W. Deans Cowan*).	Tweeddale Coll.
b''. Ad. sk.	Mauritius.	Gould Coll.

c'', *d''*. ♂ ♀ imm. sk.	Marshes of Akr-Kuf, Mesopotamia (*Commander Jones*).	India Museum.
e''–*h''*. Ad. et imm. sk.	Fao, Persian Gulf.	W. D. Cumming, Esq. [P.].
i''. Imm. sk.	Bushire, Persian Gulf, April.	A. J. V. Palmer, Esq. [P.].
k'', *l''*. ♂ ♀ ad. sk.	Tschinas, Central Asia, April (*Russow*).	Seebohm Coll.
m''. Pull. sk.	Yarkand, July 16 (*J. Scully*).	Hume Coll.
n''. Juv. sk.	Ladak (*Strachey*).	India Museum.
o''. Ad. sk.	Thibet.	Earl Gifford [P.].
p'', *q''*. ♀ ad. sk.	Cashmere.	Hume Coll.
r'', *s''*. ♂ ad.; *t''*. ♀ ad.; *u''*. ♀ juv. sk.	Gilgit, May, June, Aug.	Colonel Biddulph [C.].
v''. Ad. sk.	Cabul (*Griffith*).	India Museum.
w''. ♂ ad. sk.	Kandahar, April (*Sir O. St. John*).	Hume Coll.
x''. ♀ ad. sk.	Roree, Sindh (*Dr. Gould*).	India Museum.
y''. ♀ ad. sk.	Sukhur, Feb. (*Dr. Gould*).	India Museum.
z'', *a*^{3}. ♂ ♀ imm. sk.	Sukhur, Jan. (*A. O. H.*).	Hume Coll.
b^3. ♂ imm. sk.	Larkhana, Jan. 7 (*A. O. H.*).	Hume Coll.
c^3. ♂ juv. sk.	Erinpura, Mount Aboo, Oct. 12 (*Dr. Eddowes*).	Hume Coll.
d^3–*g*^{3}. ♂ ad. et imm. sk.	Sambhur, Dec., Jan., March (*R. M. Adam*).	Hume Coll.
h^3. ♀ juv. sk.	Delhi, Sept. 25 (*C. T. Bingham*).	Hume Coll.
i^3, *k*^{3}. Ad. sk. [w. 6·2].	North-west India.	Pinwill Coll.
l^3. Juv. sk.	Simla, Aug. 27 (*A. O. H.*).	Hume Coll.
m^3. Imm. sk.	Masuri.	Hume Coll.
n^3. Ad. sk.	Dehra Dhoon.	Tweeddale Coll.
o^3. Ad. sk.	Kumaon (*Strachey*).	India Museum.
p^3–*s*^{3}. ♂ ad.; *t*^{3}. ♀ ad. sk.	Etawah, Feb., Aug.	Hume Coll.
u^3. ♀ juv. sk.	Cawnpur, Sept. 3.	Hume Coll.
v^3, *w*^{3}, *x*^{3}. Ad.; *y*^{3}, *z*^{3}. Imm. sk.	Nepal.	Hodgson Coll.
a^4–*d*^{4}. Ad. sk. [w. 6·1].	Nepal (*B. H. Hodgson*).	India Museum.
e^4, *f*^{4}, *g*^{4}. Ad. sk. [w. 6·2–6·7].	Sikhim Terai, Dec. (*L. Mandelli*).	Hume Coll.
h^4. Ad. sk. [w. 6·8].	Buxa Doars, Jan. (*L. Mandelli*).	Hume Coll.
i^4, *k*^{4}. Ad.; *l*^{4}. ♀ imm. sk.	Bhotan Doars, Dec., Feb. (*L. Mandelli*).	Hume Coll.
m^4. Ad.; *n*^{4}. ♀ imm. sk.	Bhotan Terai, Jan. (*L. Mandelli*).	Hume Coll.
o^4, *p*^{4}. Ad. sk.	Assam (*McClelland*).	India Museum.
q^4, *r*^{4}. Ad.; *s*^{4}. Imm. sk.	Assam (*Griffith*).	India Museum.
t^4, *u*^{4}. Ad. et juv. sk.	Cachar (*J. Inglis*).	Hume Coll.
v^4. Ad. sk.	Dacca.	Hume Coll.

w^4, x^4. Ad. sk.	Tipperah, Jan. (*V. Irwin*).	Hume Coll.
y^4, z^4. ♀ ad. et juv. sk.	Calcutta, Dec. (*A. O. H.*).	Hume Coll.
a^5, b^5. Ad. et imm. sk.	Sumbalpur, Dec.	Hume Coll.
c^5. Ad. sk.	Behar.	Hodgson Coll.
d^5. ♀ ad. sk.	Depalpur, Jan. 9.	Colonel Swinhoe[P.].
e^5–g^5. ♂ ♀ ad. sk.	Raipur, Jan.	Hume Coll.
h^5. Ad. sk.	Seoni.	Hume Coll.
i^5. Imm. sk.	Malabar Coast.	Mrs. Pink [P.].
k^5. Ad. sk.	Ceylon (*H. Nevill*).	Tweeddale Coll.
l^5, m^5. ♀ ad. sk.	Thayetmyo, Pegu, Nov. (*E. W. Oates*).	Hume Coll.
n^5, o^5, p^5. ♀ imm. sk.	Tonghoo, Jan. (*R. G. W. R.*).	Tweeddale Coll.
q^5. ♀ ad. sk.	Momien, Yunnan, June.	Dr. J. Anderson [C.].
r^5. Ad. sk.	Tenasserim.	J. C. D. Packman, Esq. [P.].
s^5. ♂ juv. sk.	Pahpoon, Dec. 23 (*W. Davison*).	Hume Coll.
t^5. ♂ imm. sk.	Thamban, Thatone, Jan. 18 (*W. Davison*).	Hume Coll.
u^5. ♂ ad. sk.	Amherst, Dec. 20 (*J. Armstrong*).	Hume Coll.
v^5. ♂ ad. sk.	Tavoy, April 10 (*W. Davison*).	Hume Coll.
w^5, x^5. ♂ ad. sk. [w. 6·2–6·5].	Assoon, Feb. (*W. Limbory*).	Tweeddale Coll.
y^5. Ad. sk.	Sumatra (*Sir S. Raffles*).	Gould Coll.
z^5–d^6. Ad. et juv. sk.	Java (*Horsfield*).	India Museum. (Types of *G. orientalis*.)
e^6, f^6. Juv. sk.	Java.	Tweeddale Coll.
g^6. ♂ ad. sk.	Java (*Diard*).	Salvin-Godman Coll.
h^6, i^6. ♂ ♀ ad. sk.	Luzon, Feb. 7 (*A. B. Meyer*).	Tweeddale Coll.
k^6. ♂ imm. sk.	Monte Alban, Luzon, Feb. (*A. H. Everett*).	Tweeddale Coll.
l^6, m^6. ♂ ♀ ad. sk.	Amparo, S. Leyte, July, Aug. (*A. H. Everett*).	Tweeddale Coll.
n^6, o^6. ♀ ad. et imm. sk.	Cebu, March, April (*A. H. Everett*).	Tweeddale Coll.
p^6. ♂ ad. sk.	Zamboanga, May (*A. H. Everett*).	Tweeddale Coll.
q^6, r^6. Ad. sk.	Celebes.	Wallace Coll.
s^6. Juv. sk.	Menado, Celebes.	Tweeddale Coll.
t^6, u^6. ♂ ad. sk.	Makassar (*A. R. Wallace*).	Gould Coll.
v^6. Ad.; w^6, x^6. ♂ ♀ imm. sk.	Formosa, April, Oct. (*R. Swinhoe*).	Seebohm Coll.
y^6. Ad. sk.	China (*Reeves*).	Gould Coll.
z^6. Ad. sk.	Canton.	Tweeddale Coll.
a^7. Ad. sk.	Canton (*S. Bligh*).	Seebohm Coll.
b^7. Ad. sk.	Chefoo, May 31 (*R. Swinhoe*).	Seebohm Coll.
c^7, d^7, e^7. Ad sk.	Hankow (*R. Swinhoe*).	Seebohm and Tweeddale Colls.
f^7. Ad. sk.	Hankow (*R. Swinhoe*).	Salvin-Godman Coll.
g^7. ♀ ad. sk.	River Chuauche, May (*N. Prejevalski*).	Seebohm Coll.

h^7–l^7. Ad. sk.	Liukiu Islands, Jan., Aug. (*H. Pryer*).	Seebohm Coll.
m^7–p^7. Ad. et juv. sk.	Yokohama, March (*H. Pryer*).	Seebohm Coll.
q^7. Skeleton mtd.	England.	Purchased.
r^7. Skeleton mtd.	England.	Purchased.
s^7–v^7. Skulls.	S. Germany.	Dr. Günther [C.].
w^7. Bones of trunk.	Nepal.	Hodgson Coll.
x^7. Sternum.	England.	J. Ray, Esq. [P.].

4. Gallinula galeata.

Yahaná, *Azara, Apunt.* iii. p. 238 (1802).

Crex galeata, *Licht. Verz. Doubl.* p. 80 (1823).

Gallinula galeata, *Bp. Amer. Orn.* iv. p. 128, pl. xxxvii. fig. 1 (1832); *Neuwied, Beitr. Naturg. Bras.* iv. p. 807 (1833); *Nuttall, Man.* ii. p. 221 (1834); *Gray, Gen. B.* iii. p. 599 (1845); *Hartl. Ind. Azara*, p. 24 (1847); *Gay, Faun. Chil., Zool.* i. p. 437 (1847); *Gosse, B. Jamaica*, p. 381 (1847); *Cab. in Schomb. Reis. Guian.* iii. p. 760 (1848); *Reichenb. Handb., Fulicariæ*, Taf. 90. figs. 1010, 1011 (1852); *Burm. Th. Bras.* iii. p. 389 (1856: breeding); *Gundl. J. f. O.* 1856, p. 428 (Cuba); *Scl. P. Z. S.* 1857, p. 237 (S. Mexico); *Newb. P. R. R. Rep.* vi. p. 96 (1857: San Francisco); *Baird, B. N. Amer.* p. 752 (1858); *A. & E. Newt. Ibis*, 1859, p. 260 (S. Croix); *Heerm. P. R. R. Rep.* x. pt. vi. p. 61 (1859: California); *Bryant, Pr. Bost. Soc. N. H.* vii. p. 122 (1859: Bahamas); *Brewer, t. c.* p. 207 (Cuba); *Jones, Nat. Bermuda*, p. 46 (1859); *Taylor, Ibis*, 1860, p. 314 (Honduras); *Cassin, Proc. Philad. Acad.* 1860, p. 378 (St. Thomas); *Scl. P. Z. S.* 1861, p. 81 (Jamaica); *Burm. Reis. La Plata*, ii. p. 505 (1861: Rio Parana); *Allen, Proc. Essex Inst.* iv. p. 87 (1864); *March, Proc. Philad. Acad.* 1864, p. 69 (Jamaica); *Léot. Ois. Trinid.* p. 503 (1866); *Bryant, Proc. Bost. Soc.* x. p. 257 (1866: Porto Rico); *Lawr. Ann. Lyc. N. Y.* viii. p. 185 (1866: Nicaragua), p. 295 (New York); *McIlwraith, Proc. Essex Inst.* iv. p. 93 (1866); *Salv. Ibis*, 1866, p. 198 (Guatemala); *Bryant, Proc. Bost. Soc. N. H.* xi. p. 97 (1866: Porto Rico); *Scl. P. Z. S.* 1867, p. 339 (Chili); *id. & Salv. P. Z. S.* 1868, p. 176 (Peru); *iid. t. c.* p. 462; *Turnb. B. Pennsylv.* p. 34 (1869); *Sundev. Œfv. Vet.-Akad. Förh. Stockh.* 1869, p. 60 (Porto Rico); *Allen, Amer. Nat.* iii. p. 639 (1870: Mass.); *Salvin, Ibis*, 1870, p. 115; *Reinh. Vid. Medd. For. Kjöbenh.* 1870, p. 40 (Campos of Brazil); *Gray, Hand-l. B.* iii. p. 66, no. 10500 (1871); *Allen, Bull. Mus. C. Z.* ii. p. 357 (1871); *Pelz. Orn. Bras.* pp. 318, 459 (Ypanema, April, Sept.; Çaiçara, March, April) (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Coues, B. N.-West*, p. 540 (1874); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 312 (1874: S.W. Mexico); *Ridgw. Ann. Lyc. N. Y.* x. p. 387 (1874: Illinois); *Taez. P. Z. S.* 1874, p. 559 (Peru); *Gundl. Orn. Cuba*, p. 300 (1876); *Lawr. Bull. U.S. Nat. Mus.* p. 50 (1876: Tehuantepec); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 61 (1878); *Merrill, Proc. U.S. Nat. Mus.* i. p. 165 (1878: S. Texas); *Lawr. t. c.* pp. 276, 487 (Grenada); *Belding, t. c.* p. 443 (Stockton); *L'Herm. Cat. Ois. Guadel., teste Lawr. t. c.* p. 450 (Guadeloupe and Martinique); *Lawr. t. c.* p. 461; *Maym. B. East. N. Am.* p. 432 (1879); *Scl. & Salv. P. Z. S.* 1879, p. 546 (Antioquia); *Scl. t. c.* p. 765 (Montserrat); *Allen, Bull. Nutt. Orn. Club*, v. p. 169 (1880: Santa Lucia); *Cory, B. Bahamas*, p. 177 (1880); *A. & E. Newt. Handb.*

Jamaica, p. 115 (1881); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 47 (1881); *id. Proc. U.S. Nat. Mus.* iii. p. 202 (1881); *Coues, Check-l. N. Amer. B.* p. 110 (1882); *White, P. Z. S.* 1882, p. 627; *Salvin, P. Z. S.* 1883, p. 428 (Callao); *Stearns, N. Engl. Bird-Life*, ii. p. 291 (1883); *Coues, Key N. Amer. Birds*, 2nd ed. p. 675 (1884); *Nutting, Proc. U.S. Nat. Mus.* vi. p. 409 (1884: Nicaragua); *Cory, B. S. Domingo*, p. 161 (1884); *Barrows, Auk*, i. p. 277 (1884: Lower Uruguay); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 388 (1884); *Drew, Auk*, ii. p. 18 (1885: Colorado); *Loomis, t. c.* p. 193 (S. Carolina); *Scott, Auk*, iii. p. 386 (1886: Tucson, Arizona); *Brewster, t. c.* p. 102 (Asheville, N. Carolina); *Goss, t. c.* pp. 113, 115 (Kansas; breeding); *Cory, t. c.* p. 502 (Grand Cayman); *Tacz. Orn. Pérou*, iii. p. 327 (1886); *A.O.U. Check-l.* p. 144 (1886); *Cory, Ibis*, 1886, p. 474 (Marie Galante); *Sel. P. Z. S.* 1886, p. 402 (Tarapacá); *Salv. Ibis*, 1886, p. 177 (Brit. Guiana); *Morris, Auk*, iv. p. 72 (1887: Springfield, Mass.); *Chamberl. t. c.* p. 253 (Nova Scotia); *Wells, Proc. U.S. Nat. Mus.* ix. p. 629 (1887: Grenada); *Chapm. Auk*, v. p. 270 (1888: Florida); *Everm. t. c.* p. 348 (Indiana); *Warren, B. Pennsylv.* p. 30 (1888); *Scott, Auk*, vi. p. 155 (1889: Florida); *Robinson, t. c.* p. 194 (Rhode Island); *Richards, t. c.* p. 273 (Vermont); *Cory, List B. West Indies*, p. 257 (1889); *Sel. & Hudson, Argent. Orn.* ii. p. 156 (1889); *Salvin, Ibis*, 1889, p. 378 (Cozumel); *Feilden, t. c.* p. 499 (Barbados); *Scott, Auk*, vii. p. 308 (1890: Florida); *Brewster, Auk*, viii. p. 1 (1891: Mass.); *Cory, t. c.* p. 46 (Anguilla), p. 294 (New Providence); *Miller, t. c.* p. 118 (Mass.); *Cory, B. W. Ind.* p. 91 (1892).

Gallinula chloropus (*nec* L.), *Bp. Syn. B. N. Amer.* p. 356 (1828); *Audub. B. Amer.* pl. 224; *id. Orn. Biogr.* iii. p. 330 (1835); *id. B. Amer.* 8vo, v. p. 132, pl. 304 (1842); *D'Orb. in Ramon de la Sagra's H. N. Cuba, Ois.* p. 268 (1839); *Giraud, B. Long Isl.* p. 197 (1844); *Schl. Mus. Pays-Bas*, Ralli, p. 45 (1865, pt.).

Florida Gallinule, *Nutt. Man. Orn.* ii. p. 223 (1834).

Gallinula galatea, *Denny, P. Z. S.* 1847, p. 40.

Gallinula chloropus, var. galeata, *Coues, Key N. Amer. B.* p. 275 (1872).

Gallinula garmani, *Allen, Bull. Mus. C. Z.* iii. p. 357 (1876: Lake Titicaca); *id. Bull. Amer. Mus. N. H.* ii. p. 107 (1889: Lake Titicaca); *Baird, Brew., & Ridgw. Water-B. N. Amer.* i. p. 388 (1884).

Adult male. Similar to *G. chloropus*, and with a very distinct white edging to the first primary, but having the frontal shield truncated at the top: "bill and frontal shield bright scarlet in life, end of the former greenish yellow or bright yellow; legs and feet yellowish green, the joints ashy blue; upper part of naked tibiæ scarlet; iris brown" (*Baird, Brewer, and Ridgway*). Total length 14 inches, culmen with frontal shield 1·85, wing 7·3, tail 2·8, tarsus 2·15, middle toe and claw 3·3.

Adult female. Similar to the male in colour. Total length 14 inches, culmen with frontal shield 1·85, wing 7·3, tail 3, tarsus 2·2, middle toe and claw 3·3.

As with the Common Moorhen of the Old World, considerable difference is exhibited in the length of the wing, as will be seen by the measurements given below in the list of specimens. The birds from the West-Indian Islands are blacker than those from other

localities, and have the head and neck all round black. The Chilian specimens are very dark and very large (wing 8·3–8·5). They are the same as *G. garmani*, Allen, from Lake Titicaca, and constitute a fairly distinguishable race; but the characters given by Mr. Allen are by no means confined to Southern individuals, and there is nothing to distinguish the latter except their large size. I think that if the Chilian and Bolivian bird is recognized as a race, the West-Indian bird will have to be admitted as a subspecies also.

The average length of the wing in North-American examples is from 6·8–7·5 inches, and the West-Indian specimens 6·4–7·3, while the Chilian skins range from 8·3–8·5 inches.

Hab. The greater part of the New World.

a. ♀ ad. sk. [w. 6·6].	Arnsworth, Illinois, July 21(*E. W. Nelson*: *Hensh. Coll.*).	Salvin-Godman Coll.
b, *c*. ♂ ♀ ad. sk. [w. 7·3].	Lake Co., Indiana, April, May(*C. E. Aiken*: *Hensh. Coll.*).	Salvin-Godman Coll.
d. Juv. sk.	Quantico, Virginia, Oct. 24 (*H. W. Henshaw*).	Salvin-Godman Coll.
e. ♂ imm. sk. [w. 7·2].	Hernando Co., Florida, Jan. 24 (*Green Smith*: *Hensh. Coll.*).	Salvin-Godman Coll.
f, *g*. Imm. sk.	Hernando Co., Nov. (*W. R. Dean*).	Salvin-Godman Coll.
h–m. ♂ ad.; *n–r*. ♀ ad. sk. [w. 6·7–7·5].	De Soto Co., Florida, Dec., April (*W. R. Dean*).	Salvin-Godman Coll.
s, *t*, *u*. ♂ ad.; *v–y*. ♀ ad. sk.	Tarpon Springs, Florida, Oct., March (*W. E. D. Scott*).	Salvin-Godman Coll.
z, *a'*. Juv. sk.	Bermuda, Sept., Nov.	Capt. Saville Reid [P.].
b'–i'. ♂ ad.; *k'*, *l'*. ♀ ad. sk. [w. 6·6–7·2].	Brownsville, Texas, March, May, June, Sept. (*F. B. Armstrong*).	Salvin-Godman Coll.
m'. ♂ ad. sk. [w. 7·2].	Aransas Bay, Jan. 2 (*F. B. Armstrong*).	Salvin-Godman Coll.
n'. Ad. sk.	Near the City of Mexico.	Salvin-Godman Coll.
o'. Ad. sk. [w. 6·8].	Peto, Yucatan, April (*G. F. Gaumer*).	Salvin-Godman Coll.
p'–v'. Ad. et imm. sk. [w. 6·6–7·1].	Cozumel Island, Feb. (*G. F. Gaumer*).	Salvin-Godman Coll.
w', *x'*. Ad. sk. [w. 6·9–7·6].	Lake of Dueñas, Guatemala, Sept. (*O. Salvin*).	Salvin-Godman Coll.
y'. ♂ ad. sk. [w. 6·8].	Costa Rica (*J. Carmiol*).	Salvin-Godman Coll.
z', *a''*. Ad. sk. [w. 6·8–7·3].	Jamaica.	Purchased.
b''. Ad. sk. [w. 6·9].	Haiti.	Baron Maltzam [C.].
c'', *d''*. ♀ ad. sk.	Anguilla Island, Dec., April (*C. S. Winch*: *Cory Coll.*).	Salvin-Godman Coll.
e'', *f''*. ♂ ♀ ad. sk.	Anguilla Island (*W. R. Elliot*).	West-India Committee, Royal Society.

g'', *h''*. ♀ ad. sk.	S. Croix, Jan. (*C.S. Winch*: *Cory Coll.*).	Salvin-Godman Coll.
i''. Ad. sk. [w. 6·8].	Montserrat (*Sturge*).	Salvin-Godman Coll.
k''. Ad. sk. [w. 6·4].	Guadeloupe, Sept. (*F. A. Ober*).	Salvin-Godman Coll.
l''–o''. Ad. sk. [w. 6·9–7·0].	Grenada, April, May, Aug. (*D. W. Smith*).	Salvin-Godman Coll.
p''. ♂ ad. sk. [w. 7·1].	Mustique Island, June 3 (*D. W. Smith.*)	Salvin-Godman Coll.
q'', *r''*. Ad. sk. [w. 6·7–6·8].	Trinidad.	Purchased.
s''. ♀ ad. sk. [w. 6·6].	Antioquia, U.S. Colombia (*T. K. Salmon*).	Salvin-Godman Coll.
t''. ♂ ad. sk. [w. 7·2].	Çaiçara, Brazil, April (*J. Natterer*).	Salvin-Godman Coll.
u'', *v''*. Ad.; *w''*. Juv. sk.	Brazil.	M. Claussen.
x''. ♂ ad. sk. [w. 9·0].	Peru, June.	Warsaw Museum.
y''. Ad. sk. [w. 7·3].	Callao, Peru (*A. H. Markham*).	Salvin-Godman Coll.
z''. ♀ ad. sk. [w. 8·0].	Laguna de Tambo, S. Peru, Nov. 4 (*H. Whitely*).	Salvin-Godman Coll.
a^3, *b*^{3}. ♂ ad.; *c*^{3}, *d*^{3}, *e*^{3}. ♀ ad. sk. [w. 8·3–8·5].	Sacaya, Chili, Jan., March, April.	Berkeley James Coll.
f^3. ♀ ad. sk.	Lujan Bridge, Campana Railway, Buenos Ayres, Oct. 29.	H. Durnford, Esq. [C.].
g^3. Sternum.	Jamaica.	Gosse Coll.

Subsp. *a*. **Gallinula sandwichensis.**

Gallinula chloropus (*nec L.*), *Bloxham*, *Voy.* '*Blonde*,' p. 250 (1826); *Peale*, *U.S. Expl. Exped.* i. p. 220 (1848); *Hartl. Arch f. Naturg.* xviii. p. 137 (1852); *Dole*, *Proc. Bost. Soc. N. H.* xii. p. 302 (1869).
Gallinula sp., *Gray*, *Cat. B. Trop. Isl. Pacific Ocean*, p. 50 (1859).
Gallinula sandvicensis, *Streets*, *Ibis*, 1877, p. 25 (Oahu); *id. Bull. U.S. Nat. Mus.* no. 7, p. 19 (1887); *Finsch*, *Ibis*, 1880, p. 78 (Mauai; Oahu); *Ridgw. Proc. U.S. Nat. Mus.* iv. p. 331 (1882); *Wilson & Evans*, *Av. Haw.* pt. 4 (1893).
Gallinula galeata sandwichensis, *Stejn. Proc. U.S. Nat. Mus.* x. p. 78 (1887), xii. p. 380 (1889).

Adult. Similar to *G. galeata*, but with a larger frontal plate, shorter wing, more robust tarsus, "and distinguished by the absence of white on the abdomen and under surface of the wing, as well as its reduction on the margin of the same:" "frontal plate and bill bright crimson, the latter tipped with yellow; tibia naked for about an inch, and with a bright crimson ring; a decided crimson blush on the front of the tarsus, deepening on the sides; feet pea-green" (*T. H. Streets*).

Hab. Sandwich Islands.

a. Skull.	Hilo.

5. Gallinula angulata.

Gallinula angulata, *Sundev. Öfv. K. Vet.-Akad. Förh. Stockh.* 1850, p. 110; *Schl. Mus. Pays-Bas*, Ralli, p. 49 (1865); *Layard, B. S. Afr.* p. 342 (1867 : Swellendam); *Gurney in Anderss. B. Dam.-Ld.* p. 321 (1872 : Ondonga, breeding); *Sharpe, in Oates' Matabele-Land, App. Birds*, p. 331 (1881 : Dry River; Tibakai's Vley); *Shelley, P. Z. S.* 1881, p. 601 (Dar-es-Salaam); *id. Ibis*, 1882, p. 366 (Matabele-Land); *Sharpe, ed. Layard's B. S. Afr.* p. 624 (1884); *Heine & Reichen. Nomencl. Mus. Hein.* p. 318 (1890 : S. Thomas); *Sharpe, Ibis*, 1892, p. 246 (Teita).

Gallinula pumila, *Selater, Ibis*, 1859, p. 249, pl. vii. (Natal); *Gray, Hand-l. B.* iii. p. 66, no. 10498 (1871).

Gallinula minor (*auct. ex Briss.*), *Hartl. J. f. O.* 1860, p. 341 (Senegal), 1861, p. 272; *Böhm, J. f. O.* 1882, p. 188 (Kakoma).

Adult male. General colour above brown, washed with greenish olive; wing-coverts rather more ashy grey; bastard-wing feathers brown, edged with white; primary-coverts and quills brown, externally ashy, the first primary white along the outer web; tail-feathers blackish; head and neck all round and under surface of body dark slaty grey, blackish on the crown, sides of face, and throat; the flanks broadly streaked with white; vent and median under tail-coverts black; remainder of the under tail-coverts white; under wing-coverts and axillaries slaty grey like the breast; a line of white along the bend of the wing: "frontal shield bright red; bill bright yellow; feet and toes grass-green, in some drab or flesh-coloured tinged with light green" (*C. J. Andersson*). Total length 9 inches, culmen and frontal shield 1·2, wing 5·7, tail 2·3, tarsus 1·55, middle toe and claw 2·3.

Adult females, according to Mr. Andersson, differ from the males in being lighter grey and having a nearly white chin and throat: "frontal shield not so bright as in the male and tinged with orange at base" (*C. J. A.*).

Young. Browner than the adult, the upper parts being chocolate-brown with a tinge of olive; head dusky brown; lores and eyebrow ashy grey, as also the ear-coverts; cheeks and throat white; fore neck and chest light brown, as also the sides of the breast; remainder of under surface hoary grey, darker ashy on the flanks; vent black; under tail-coverts white; under wing-coverts and axillaries ashy grey, edged with white; flanks broadly streaked with white, as in the adult: "frontal shield orange-red" (*C. J. A.*).

Hab. The greater part of Africa.

a, b. ♂ ad.; *c, d, e.* ♀ ad. sk.	Accra, March, May, July (*J. Smith*).	Shelley Coll.
f. ♀ ad. sk.	Ambriz, Angola.	Monteiro Coll.
g, h. ♂ ♀ ad. sk.	Damara-Land.	Tweeddale Coll.
i. ♂ ad. sk.	Dry River, Transvaal, Feb. 27 (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
k. ♀ ad. sk.	Tibakai's Valley (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
l. Imm. sk.	Makolaka Country.	Dr. Bradshaw [C.].
m, n. ♂ ♀ ad. sk.	Dar-es-Salaam (*Sir J. Kirk*).	Shelley Coll.

46. PORPHYRIOPS.

	Type.
Porphyriops, *Pucher. Rev. Zool.* 1845, p. 278	P. melanops.
Hydrocicca, *Cab. Arch. f. Nat.* 1847, p. 351.....	P. melanops.

Range. South America, from the Argentine Republic to Chili and thence north to Peru and Colombia.

1. Porphyriops melanops.

Cara negra, *Azara, Apunt.* iii. p. 223 (1802).
Rallus melanops, *Vieill. N. Dict.* xxviii. p. 553 (1819).
Fulica crassirostris, *J. E. Gray, in Griffith's Anim. Kingd., Birds,* iii. p. 542, cum tab. (1829).
Gallinula crassirostris, *Gould, in Darwin's Voy. 'Beagle,' Birds,* p. 133 (La Plata; Valparaiso); *Bridges, P. Z. S.* 1843, p. 118; *Gray, Cat. Gralle Brit. Mus.* p. 123 (1844); *id. Gen. B.* iii. p. 599 (1845); *Schl. Mus. Pays-Bas,* Ralli, p. 49 (1865); *Gray, Hand-l. B.* iii. p. 66, no. 10502 (1871).
Crex femoralis, *Tschudi, Arch. f. Nat.* 1843, p. 388.
Ortygometra carolinensis (?), *Hartl. Ind. Azara,* p. 24 (1847).
Hydrocicca melanops, *Cab. Arch. f. Nat.* 1847, p. 351; *Scl. P. Z. S.* 1867, p. 333 (Chili); *Heine & Reichen. Nomencl. Mus. Hein.* p. 317 (1890).
Amaurornis femoralis, *Bonap. C. R.* xliii. p. 600 (1856).
Ortygometra melanops, *Burm. Reise La-Plata St.* ii. p. 505 (1861: Rio Uruguay).
Porphyriops melanops, *Scl. & Salv. P. Z. S.* 1868, p. 461: *Pelz. Orn. Bras.* p. 315, note (1871: Montevideo; Panama); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Durnf. Ibis,* 1876, p. 163 (Buenos Ayres), 1877, p. 195; *Salvin, P. Z. S.* 1883, p. 428; *Taczan. Orn. Pérou,* iii. p. 326 (1886); *Scl. & Hudson, Argent. Orn.* ii. p. 156 (1889).
Porphyriops crassirostris, *Pucher. Rev. Zool.* 1845, p. 278; *Scl. & Salv. P. Z. S.* 1868, p. 461; *Salvad. Atti Soc. Ital. Sci. Nat.* viii. p. 382 (1865).
Porphyriops leucopterus, *Salvad. ut suprà*; *Scl. & Salv. P. Z. S.* 1868, p. 175.
Gallinula melanops, *Gray, Hand-l. B.* iii. p. 66, no. 10503 (1871).
Gallinula leucoptera, *Gray, t. c.* p. 66, no. 10504 (1871).

Adult male. General colour above warm olive-brown, the scapulars with a slight chestnut tinge; wing-coverts more chestnut than the back and slightly washed with golden olive; bastard-wing, primary-coverts, and quills dark brown, the former narrowly fringed with white, the first primary white along the outer edge; the inner secondaries brown, washed with golden olive and edged externally with white: tail-feathers dark brown; head and hind neck brown like the back, but the latter a little tinged with grey; sides of face dark ashy; cheeks, throat, and under surface of body slaty grey, washed with sandy colour on the fore neck and breast; abdomen whiter; under tail-coverts pure white; sides of vent barred with white; flanks ocellated with numerous ovate spots of white; under wing-coverts white, spotted or barred with dusky brown; axillaries regularly barred with brown and white: "legs and feet pale oli-

vaceous" (*H. Durnford*). Total length 9 inches, culmen 1·15, wing 5·3, tail 2·3, tarsus 1·65, middle toe and claw 2·4.

Hab. The same as that of the genus.

a, *b*, *c*. Ad. sk.	Bogota, U.S. Colombia.	Salvin-Godman Coll.
d. Imm. sk.	Brazil.	M. Claussen [P.].
e, *f*. ♂ ♀ imm. sk.	Pelotas, Rio Grande do Sul, Brazil (*Joyner*).	Salvin-Godman Coll.
g. Ad. sk.	Espartillar, near Buenos Ayres, Sept. 10.	H. Durnford, Esq. [C.].
h. ♂ ad. sk.	Santiago, Chili (*Leybold*).	Salvin-Godman Coll.
i. ♀ ad. sk.	Coquimbo Lagoon, Chili, Nov. (*A. H. Markham*).	Salvin-Godman Coll.
k. Juv. sk.	Central Chili (*E. C. Reed*).	Salvin-Godman Coll.
l–t. Ad. et imm. sk.	Central Chili.	Berkeley James Coll.

47. GALLICREX.

	Type.
Gallicrex, *Blyth, Cat. B. Mus. As. Soc.* p. 283 (1849).....	G. cinerea.
Hypnodes, *Reichenb. Syst. Nat.* p. xxi (1852).	G. cinerea.
Gallinulopha, *Bp. Ann. Sci. Nat.* (4) i. p. 150 (1854).....	G. cinerea.

Range. Indian Peninsula and Ceylon, through the Burmese countries to China and Japan: south to the Philippines, Java, Sumatra and Borneo.

1. Gallicrex cinerea.

Crested Gallinule, *Lath. Gen. Syn.* iii. pt. i. p. 267 (1785).

Fulica cinerea, *Gm. Syst. Nat.* i. p. 702 (1788).

Gallinula cristata, *Lath. Ind. Orn.* ii. p. 773 (1790, *nec* Fulica cristata, *op. cit.* p. 779); *Gray, Cat. Gralle etc. Brit. Mus.* p. 123 (1844: Manila; Java); *id. Gen. B.* iii. p. 599 (1845); *Schl. Mus. Pays-Bas*, Ralli, p. 39 (1865); *Gray, Hand-l. B.* iii. p. 67, no. 10511 (1871); *id. Fasc. B. China*, p. 7 (1871); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlii. p. 110 (1882).

Gallinula plumbea, *Vieill. N. Dict. d'Hist. Nat.* xii. p. 404 (1817).

Gallinula cinerea, *Vieill. t. c.* p. 404 (1817); *Martens, J. f. O.* 1866, p. 29 (Manila).

Gallinula lugubris, *Horsf. Trans. Linn. Soc.* xiii. p. 195 (1820); *Gray, Fasc. B. China*, pl. x. (1871).

Gallinula gularis, *Horsf. t. c.* p. 195.

Gallinula nævia, *Less. Traité*, p. 534 (1831); *Pucher. Rev. et Mag. de Zool.* 1851, p. 569.

Gallinula porphyrioides, *Less. t. c.* p. 534; *Pucher. t. c.* p. 569.

Rallus rufescens, *Jerd. Madr. Journ.* xii. p. 205 (1840: Cochin).

Gallicrex cristata, *Blyth, Cat. B. Mus. As. Soc.* pp. 283, 1660 (1849: Calcutta); *Swinh. Ibis*, 1861, p. 56 (Canton; Foochow), p. 411 (Amoy); *Sel. P. Z. S.* 1863, p. 223 (Banjarmassin); *Jerd. B. Ind.* iii. p. 716 (1864); *Swinh. Ibis*, 1866, p. 297 (Formosa); *Blyth, Ibis*, 1867, p. 171; *Hume, Ibis*, 1870, p. 438 (Tippera); *Swinh. P. Z. S.* 1871, p. 414 (S. China to Szechuen); *Holdsw. P. Z. S.* 1872, p. 475 (Colombo); *Godw.-Aust. J. A. S. Beng.* xli. p. 142 (1872: Khasia Hills); *Adam, Str. F.* i. p. 398 (1873: Sambhur); *Salvad. Ucc. Born.* p. 340 (1874); *Blyth & Wald. B. Burm.* p. 161 (1875); *Hume, Str. F.* v. pp. 247, 329 (Sind); *id. Str. F.* vii. p. 187 (1878); *Sharpe, Ibis*, 1879, p. 271 (Lawas River);

Butler, Cat. B. Sind etc. p. 66 (1879); *Kelham, Ibis*, 1882, p. 186 (Perak); *Parker, Ibis*, 1883, p. 194; *Blakist. Amended List B. Japan*, pp. 24. 42 (1884); *Seeb. Ibis*, 1884, p. 178 (Nagasaki), p. 268 (Kiukiang); *Oates, ed. Hume's Nests & Eggs Ind. B.* iii. p. 287 (1890).

Crex lugubris, *Reichenb. Handb., Fulic. Novit.* pl. lix. figs. 2572–73 (1851), *teste Salvad.*

Hypnodes cristatus, *Reichenb. Syst. Nat.* p. xxi (1852).

Gallicrex cinerea, *Wald. Ibis*, 1873, p. 317 (Andamans); *Hume, Nests & Eggs Ind. B.* p. 596 (1873); *id. Str. F.* ii. p. 300 (1874); *Cripps, t. c.* p. 531; *Hume, Str. F.* iii. p. 187 (1875); *Swinh. Ibis*, 1875, p. 134 (Chefoo); *Walden, Tr. Z. S.* ix. p. 229 (1875); *Wardlaw Ramsay, Ibis*, 1877, p. 471 (Tonghoo: breeding); *David & Oust. Ois. Chine*, p. 484 (1877); *Hume & Davison, Str. F.* vi. p. 466 (1878: Tenasserim); *Ball, Str. F.* vii. p. 229 (1878); *Cripps, t. c.* p. 305 (Faridpur); *Hume, t. c.* p. 489 (Calcutta); *Legge, B. Ceylon*, p. 791 (1879); *Hume, Str. F.* viii. pp. 70, 113 (1879); *Doig, t. c.* p. 371 (E. Narra: breeding); *Hume, Str. F.* ix. p. 121 (1880: Klang); *Barnes, Str. F.* x. p. 167 (1881); *Oates, Handb. B. Brit. Burm.* ii. p. 349 (1883); *Murray, Vertebr. Faun. Sind*, p. 26 (1884: Aaral; Sehwan); *Wardlaw Ramsay, Ibis*, 1886, p. 160 (Manila); *Stejn. Proc. U.S. Nat. Mus.* ix. p. 405 (1886); *Everett, Journ. Straits Br. Asiat. Soc.* 1889, p. 203; *Seeb. B. Japan. Emp.* p. 360 (1890: Nagasaki); *Steere, List B. & Mamm. Exped. Philipp.* p. 25 (1890: Marinduque).

Hypnodes cinereus, *Heine & Reichen. Nomencl. Mus. Hein.* p. 317 (1890).

Adult male. General colour above black, with a few remains of ashy-grey margins to the feathers, or with brown edgings to the scapulars, lower back, and rump; upper wing-coverts blackish, broadly edged with ashy grey; the feathers round the bend of the wing white; bastard-wing, primary-coverts, and quills blackish brown, slightly shaded with grey externally, the first primary externally white; the inner secondaries edged with light brown; tail-feathers blackish, edged with brown; head and neck all round and under surface of body deep black, including the under tail-coverts; a few whitish feathers on the lower abdomen; the under tail-coverts buffy white, with black bars; under wing-coverts black, barred and edged with white; axillaries black like the sides of the breast: "frontal shield and base of upper mandible deep red; remainder of bill yellow, a spot on each side of the lower mandible red; frontal process or horn pinkish; legs plumbeous green; claws horn-colour; iris reddish brown; eyelids plumbeous" (*E. W. Oates*). Total length 16·5 inches, culmen with frontal shield 2·7, wing 8·6, tail 2·9, tarsus 3·1.

According to Mr. Oates, the male in winter has the fleshy process on the head reduced in size or nearly obsolete.

Adult female. General colour above dark brown with a slight ashy shade, the feathers with sandy-buff margins, so that the upper surface appears streaked; the lower back and rump rather more uniform; wing-coverts ashy grey, the greater series browner, with fulvous margins like the inner secondaries, which have dusky frecklings also on the outer web; bastard-wing ashy brown,

the outer feathers edged with white; primary-coverts and quills brown, externally shaded with ashy, the first primary white along the outer web; tail-feathers dark brown, edged with lighter brown; crown of head uniform dark brown, forming a cap; hind neck like the back; lores, eyebrow, sides of face, and sides of neck dark sandy buff; throat white, as also the centre of the abdomen; remainder of under surface from the lower throat downwards pale isabelline buff, crossed with narrow wavy bars of dusky brown; lower flanks rather more uniform ashy brown; under tail-coverts more tawny, with dusky brown cross bars; under wing-coverts and axillaries uniform ashy brown, the edge of the wing white: quills uniform ashy brown below. Total length 12 inches, culmen 1·5, wing 6·8, tail 2·6, tarsus 2·7, middle toe and claw 3·6.

Young. Resembles the old female, but is much more tawny everywhere, especially on the sides of the face, neck, and underparts, the latter being much more narrowly and indistinctly barred with dusky brown than in the adult birds.

Hab. The same as that of the genus.

a. ♂ imm.; *b, c.* [♀] ad. sk.	Ceylon.	Hume Coll.
d. ♂ ad. sk.	Cotta, W. Ceylon, Sept. 14 (*Hart*).	Hume Coll.
e, f. ♂ ♀ ad. sk.	Ceylon (*H. Neville*).	Tweeddale Coll.
g, h. Ad. sk.	Anjango, Travancore.	Hume Coll.
i. ♂ ad. sk.	Faizabad, Oudh, July 6.	Hume Coll.
k, l. ♂ ad. sk.	Dacca.	Hume Coll.
m. ♀ ad. sk.	Faridpur, June 2 (*J. R. Cripps*).	Hume Coll.
n, o. ♂ ad.; *p, q.* ♀ ad. sk.	Tippera (*V. Irwin*).	Hume Coll.
r. ♂ ad. sk.	Dibrughur, June 19 (*J. R. Cripps*).	Hume Coll.
s, t. ♂ ad.; *u.* ♂ jr.; *v, w.* ♀ ad. et jr. sk.	Pegu, May to August.	Oates Coll.
x, y. ♂ ad.; *z.* ♀ ad. sk.	Tonghoo, July (*R. G. W. R.*).	Tweeddale Coll.
a'. Ad. sk.	N.E. of Rangoon, June 16.	Hume Coll.
b'. ♂ ad.; *c', d'.* ♀ ad. sk.	South Andamans, Dec. to March (*R. G. W. R.*).	Tweeddale Coll.
e', f'. ♂ imm.; *g', h'.* ♀ imm. sk.	South Andamans, April, May (*R. J. Wimberley*).	Hume Coll.
i', k'. ♂ ♀ ad. sk.	Port Blair.	Hume Coll.
l'. ♀ juv. sk.	Aberdeen, May 1 (*W. Davison*).	Hume Coll.
m', n'. ♂ ad.; *o'.* ♂ jr.; *p'–s'.* ♀ ad. sk.	Tavoy, Tenasserim, April, May (*W. Davison*).	Hume Coll.
t'. ♂ ad. sk.	Thatone (*W. Davison*).	Hume Coll.
u'. ♂ imm. sk.	Attaran River, March 16 (*W. Davison*).	Hume Coll.
v'. Imm. sk.	Cochin China.	M. E. Pierre [P.].
w'. Ad. sk.	Province Wellesley (*Dr. Cantor*).	India Museum.

x', *y'*. ♂ ♀ imm. sk.	Penang (*Dr. Cantor*).	India Museum.
z', *a''*, *b''*. ♀ ad. sk.	Klang, Salangore, Dec., Jan. (*W. Davison*).	Hume Coll.
c'', *d''*. ♂ ad. et imm. sk.	Malacca (*Dr. Maingay*).	Tweeddale Coll.
e''. ♂ ad. sk.	Java (*Horsfield*).	India Museum. (Type of *G. lugubris*.)
f''. ♀ ad. sk.	Java (*Horsfield*).	India Museum. (Type of *Gallinula gularis*.)
g''. Imm. sk.	Java.	Tweeddale Coll.
h''. Ad. sk.	Batang Lupar, Borneo.	A. H. Everett, Esq. [P.].
i'', *k''*. ♂ ad. et juv. sk.	Canton, China.	Tweeddale Coll.
l''. ♂ ad. sk.	Canton, May (*R. Swinhoe*).	Tweeddale Coll.
m''–o''. ♂ ad. et imm. sk.	Shanghai (*J. R. Reeves*).	Gould Coll.
p''–t''. ♂ ad. et imm. sk.	Shanghai, May, June (*R. Swinhoe*).	Seebohm Coll.
u''. ♂ ad. sk.	Shanghai, June.	Shanghai Museum.
v''. ♀ ad. sk.	Hankow, summer (*R. Swinhoe*).	Tweeddale Coll.
w'', *x''*. ♀ juv. sk.	Hankow, summer (*R. Swinhoe*).	Seebohm Coll.
y''. ♂ ad. sk.	Kiukiang, May.	Tweeddale Coll.
z''. ♂ imm. sk.	Chefoo, May (*R. Swinhoe*).	Seebohm Coll.
a^3. ♂ ad. sk.	Ningpo, May (*R. Swinhoe*).	Seebohm Coll.
b^3, *c*^{3}. ♂ ad. sk.	Fokien.	Gould Coll.
d^3. ♂ ad. sk.	Amoy, May (*R. Swinhoe*).	Seebohm Coll.
e^3. ♀ ad. sk.	Nagasaki, Japan.	F. Ringer, Esq. [P.].

48. PSAMMOCREX *.

	Type.
Psammocrex, *Oustalet*, *Le Naturaliste*, ii. p. 509 (1884) ..	P. petiti.

Range. Lower Congo.

1. Psammocrex petiti.

Psammocrex petiti, *Oustalet*, *Le Nat.* ii. p. 509 (1884).

Female. Forehead and eyebrows ashy grey; chin white; throat and sides of neck yellowish; the feathers of the back tinged with reddish black and ashy grey, the breast with fulvous and ashy: bill bluish; feet rosy flesh-colour; iris reddish. Total length 17 inches, bill 3·45, wing 8·85, tail 4·1, tarsus 3·15, middle toe without claw 1·85. (*Oustalet.*)

Hab. Landana, Lower Congo.

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* I followed Dr. Oustalet in placing this genus near to *Gallicrex*, as I had never seen the bird. Mr. Keulemans, however, has recently made a sketch of the type for me, and it is evident that *Psammocrex petiti* is *Himantornis hæmatopus* (*suprà*, p. 69), an identification in which Dr. Oustalet, I believe, concurs.

49. PORPHYRIOLA.

	Type.
Porphyrula, *Blyth, Cat. B. Mus. As. Soc.* p. 283 (1849; *descr. nullâ*)	P. alleni.
Ionornis, *Reichenb. Nat. Syst.* p. xxi (1852)	P. martinica.
Glaucestes, *Reichenb. Nat. Syst.* p. xxi (1852)	P. parva.
Hydrornia, *Hartl. Orn. Westafr.* p. 243 (1857)	P. alleni.
Porphyriola, *nomen emend. pro* Porphyrula, *Blyth, Sundev. Av. Meth. Tent.* p. 131 (1872)	P. alleni.
Ionocicca, *Salvad. Elench. Ucc. Ital.* p. 236 (1887)	P. alleni.

Range. Southern Europe (accidental), the whole of Africa, Eastern North America, south throughout Central and the greater part of South America.

Key to the Species.

a. Below purplish blue; abdomen and thighs black.
  a'. Wing-coverts externally green, like the quills; lower back and rump black ..... *alleni*, p. 187.
  b'. Wing-coverts externally blue; primaries externally green; lower back and rump green .... *martinica*, p. 189.
b. Below white; wings externally greyish blue..... *parva*, p. 191.

1. Porphyriola alleni.

Porphyrio alleni, *Thomps. Ann. & Mag. N. H.* x. p. 204 (1842); *Gray, List Gralla Brit. Mus.* p. 121 (1844); *id. Gen. B.* iii. p. 598, pl. clxii. (1845); *Allen & Thomps. Exp. Niger*, i. p. 332, ii. p. 507 (1848); *Reichenb. Handb., Fulicariæ*, tab. eix. fig. 1104 (1852); *Bolle, J. f. O.* 1857, p. 341, 1858, p. 457; *Cass. Proc. Philad. Acad.* 1859, p. 175 (Camma R.); *Mont. P. Z. S.* 1860, p. 112 (Bembe); *Hartl. J. f. O.* 1861, p. 272; *E. Newt. Ibis*, 1863, p. 458 (Madagascar); *Doderl. Avif. Sicil.* p. 204 (1869); *Finsch & Hartl. Vög. Ost-Afr.* p. 785 (1870); *Selys-Longch. Ibis*, 1870, pp. 452–454 (Sicily); *Gray, Hand-l. B.* iii. p. 65, no. 10487 (1871); *Gurney, in Anderss. B. Dam.-Ld.* p. 327 (1872); *Shelley, B. Egypt*, p. 276 (1872); *Heugl. Orn. N.O.-Afr.* ii. pt. i. p. 1228 (1873); *Reichen. J. f. O.* 1874, p. 376 (Cameroons); *Saunders, Bull. Soc. Zool. France*, ii. p. 189 (1877: S. Spain); *Hartl. Vög. Madag.* p. 346 (1877); *Gigl. Icon. Avif. Ital.* fasc. ii. (1879); *Dresser, B. Eur.* vii. p. 307, pl. 502 (1880); *Bocage, Orn. Angola*, p. 485 (1881); *Sharpe, in Oates' Matabele-Ld.* p. 324 (1881); *Milne-Edwards & Grandid. Hist. Nat. Madag., Ois.* i. p. 593, pl. 245 (1882); *Böhm, J. f. O.* 1882, p. 188 (Zanzibar); *Sharpe, ed. Layard's B. S. Afr.* p. 621 (1884); *Böhm, J. f. O.* 1885, p. 38 (Ugalla River); *Fischer, t. c.* p. 117 (Zanzibar; Barawa); *Ayres, Ibis*, 1885, p. 346 (Transvaal); *Hartert, J. f. O.* 1886, p. 608 (Loko); *Reichen. J. f. O.* 1887, p. 108 (Cameroons); *Shelley, Ibis*, 1888, p. 304 (Jipi); *Milne-Edwards & Oust. N. Arch. Mus.* (2) x. p. 279 (1889: Mayotte; Rodriguez; Madagascar); *Büttik. Notes Leyden Mus.* xi. p. 77 (1889: Humpata); *E. Newt. Tr. Norw. & Norf. N. H. Soc.* iv. p. 552 (1889: Rodriguez); *Reichen. J. f. O.* 1889, p. 267 (Zanzibar); *id. J. f. O.* 1890, p. 108 (Delta of Cameroons).

Porphyrio chloronotus, *Blyth, J. A. S. Beng.* xviii. pt. 2, p. 820 (1849).

Porphyrula chloronotus, *Blyth, Cat. B. Mus. As. Soc.* p. 283 (1849).

Gallinula mutabilis, *Sundev. Œfv. K. Vet.-Akad. Förh.* 1850, p. 132.
Porphyrio madagascariensis (*nec auct.*), *Reichenb. Handb., Fulicariæ*, tab. eviii. figs. 1094, 1095 (1852).
Gallinula porphyrio (*nec Lath.*), *Temm. MSS. in Mus. Lugd.*; *Hartl. J. f. O.* 1855, pp. 357, 361.
Cæsarornis alleni, *Bp. C. R.* xliii. p. 599 (1856).
Hydrornia porphyrio, *Bp. t. c.* p. 599 (1856); *Hartl. Orn. W.-Afr.* p. 243 (1857); *Sharpe, Ibis*, 1870, p. 488 (Fantee).
Porphyrio variegatus, *Guirao, Cat. Met. Aves Prov. Murcia in Real Acad. Sci. Madrid*, iv. p. 554, pl. ii. (1856, *teste Howard Saunders*); *Bayos y Prosper, Ann. Sci. Esp.* xv. p. 109 (1886).
Porphyrio (Cæsarornis) alleni), *Hartl. Orn. W.-Afr.* p. 243 (1857: Elmina).
Gallinula alleni, *Schl. Mus. Pays-Bas*, Ralli, p. 38 (1865).
Porphyriola chloronotus, *Sundev. Av. Meth. Tent.* p. 131 (1872).
Porphyrula chloronotus, *Hume, Str. F.* vii. p. 456 (1878).
Hydrornia alleni, *Salvad. Orn. Ital., Ucc.* p. 233 (1871); *Oustal. N. Arch. Mus.* (2) ii. *Bull.* p. 116 (1879: Doumè); *Gigl. Ibis*, 1881, p. 211; *id. Avif. Ital.* p. 353 (1886); *id. ibid.* 1*st Resoc.* p. 550 (1889).
Ionocicca alleni, *Salvad. Elench. Ucc. Ital.* p. 236 (1887).

Adult. General colour above dull olive-green, more dusky on the lower back, rump, and upper tail-coverts; marginal coverts of the wing blue, the median and greater series green like the back; bastard-wing and primary-coverts blue; quills dusky, externally bluish green; the inner secondaries olive-brown; tail brouzy olive; head all round blackish with a purplish gloss; the hind neck and sides of neck rather brighter blue; entire under surface of body greyish purple, blacker on the vent and thighs; under tail-coverts white; axillaries black; under wing-coverts blackish, those near the edge of the wing brighter blue: "bill dark red; frontal shield dusky; tarsi and feet crimson: iris reddish brown" (*T. Ayres*). Total length 11 inches, culmen with frontal shield 1·85, wing 6·1, tail 2·6, tarsus 2·1, middle toe and claw 2·8.

Young. Different from the adult. General colour above ochreous brown, with blackish centres to the feathers; lower back, rump, and upper tail-coverts blackish, the feathers margined with dark ochreous; wing-coverts dark olive-greenish, with ochreous margins, the marginal coverts more blue; quills dusky, externally olive-green; the first primary whity brown along the outer web; the inner secondaries dark brown, with ochreous margins; crown of head reddish brown; sides of face and under surface of body deep ochreous buff, increasing in depth of tint on the flanks and under tail-coverts; the throat and centre of breast and abdomen paler; under wing-coverts dusky brown, edged with white; axillaries blackish, tipped with ochreous; quills sepia-brown below.

Hab. Africa generally, with Madagascar and Rodriguez; accidental in Southern Europe and the Canary Islands.

a. Ad. sk.	Senegambia.	Purchased.
b. Ad. sk.	Fantee (*Gov. Usshcr*).	Shelley Coll.
c, d. Ad. sk.	Egga, River Niger.	Capt. Mochler Ferryman [P.].
e. Ad. sk.	Bembe, Angola.	Monteiro Coll.

f. ♂ ad. sk.	Rustenberg district, Eastern Transvaal, Dec. (*T. Lucas*).	Gurney Coll.
g. Juv. sk.	Transvaal (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
h. Ad. sk.	Jipi, Lamu.	F. J. Jackson, Esq. [P.].
i. Ad. sk.	Musshra Req, Equatorial Africa, March.	F. Bohndorff [C.].
k. Skeleton.	Africa.	Zoological Society.

2. Porphyriola martinica.

Le Petite Poule-Sultane, *Briss. Orn.* v. p. 526, pl. 42. fig. 2 (1760); *Buff. Hist. Nat. Ois.* viii. p. 206 (1781).

Fulica martinica, *Linn. Syst. Nat.* i. p. 259 (1766).

Martinico Gallinule, *Lath. Gen. Syn.* iii. pt. i. p. 255, pl. 88 (1785).

Fulica martinicensis, *Gm. Syst. Nat.* i. p. 700 (1788); *L'Herm. Cat. Ois. Guadel., teste Lawr. Proc. U.S. Nat. Mus.* i. p. 450 (1878: Guadeloupe; Martinique).

Gallinula martinica, *Lath. Ind. Orn.* ii. p. 769 (1790); *Temm. Pl. Col.* text to pl. 485; *Jard. ed. Wilson's Amer. Orn.* iii. p. 188 (1832); *Baird, B. N. Amer.* p. 753 (1858); *Jones, Nat. in Bermuda*, p. 46 (1859); *Bryant, Proc. Bost. Soc. N. H.* vii. p. 122 (1859: Bahamas); *Scl. P. Z. S.* 1864, p. 179 (City of Mexico); *March, Proc. Philad. Acad.* 1864, p. 69 (Jamaica); *Schl. Mus. Pays-Bas*, Ralli, p. 38 (1865); *Dresser, Ibis*, 1866, p. 41 (Texas); *Bryant, Proc. Bost. Soc. N. H.* x. p. 257 (1866: Porto Rico); *Sundev. Œfv. K. Vet.-Akad. Förh. Stockh.* 1869, p. 601 (S. Bartholomew); *Allen, Bull. Mus. C. Z. Cambr.* ii. p. 358 (1871).

Yahauà celeste verde, *Azara, Apunt.* iii. p. 243 (1802).

Yahanà garganta celeste, *Azara, t. c.* p. 253 (1802).

Porphyrio cyanicollis, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 28 (1819).

Gallinula porphyrio, *Wils. Amer. Orn.* ix. p. 67, pl. lxxiii. fig. 2 (1814).

Crex martinica, *Licht. Verz. Doubl.* p. 79 (1823).

Porphyrio tavoua, *Vieill. Gal. Ois.* ii. p. 170, pl. 267 (1834).

Porphyrio martinicus, *Aud. B. Amer.* 8vo, v. p. 128, pl. 303 (1842); *d'Orb. in Ramon de la Sagra's H. N. Cuba*, p. 265 (1839); *Gray, List Grallæ etc. Brit. Mus.* p. 121 (1844); *id. Gen. B.* iii. p. 598 (1845); *Gosse, B. Jamaica*, p. 377 (1847); *Hartl. Ind. Azara*, p. 24 (1847); *Cab. in Schomb. Reis. Guian.* iii. p. 761 (1848); *Burm. Th. Bras.* iii. p. 392 (1856); *Scl. & Salv. Ibis*, 1859, p. 230 (Peten); *Moore, P. Z. S.* 1859, p. 64; *Brewer, Proc. Bost. Soc. N. H.* vii. p. 307 (1860: Cuba); *Scl. P. Z. S.* 1861, p. 81 (Jamaica); *id. & Salv. P. Z. S.* 1864, p. 372 (Panama); *E. C. Taylor, Ibis*, 1864, p. 96 (Trinidad), p. 171 (Porto Rico); *Léot. Ois. Trinid.* p. 501 (1866); *Scl. & Salv. P. Z. S.* 1867, p. 592 (R. Amazon); *Salv. Ibis*, 1868, p. 115 (Costa Rica); *Scl. & Salv. P. Z. S.* 1868, p. 459; *Reinh. Vid. Medd. Nat. Foren. Kjöbenh.* 1870, p. 41 (Minas Geraes); *Finsch, P. Z. S.* 1870, p. 589 (Trinidad); *Wyatt, Ibis*, 1871, p. 383 (Lake Paturia); *Pelz. Orn. Bras.* pp. 317, 459 (1871); *Gray, Hand-l. B.* iii. p. 65, no. 10489 (1871); *Coues, Key N. Amer. B.* p. 275 (1872); *Scl. P. Z. S.* 1872, p. 653 (Santa Lucia); *id. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Lawr. Mem. Bost. Soc. Nat. Hist.* ii. p. 312 (1874: Rio de Collhuana); *id. Proc. U.S. Nat. Mus.* i. p. 197 (1878: St. Vincent), p. 487 (Dominica); *Scl. & Salv. P. Z. S.* 1879, p. 546 (Medellin); *Cory, B. Bahamas*, p. 178

(1880); *Allen, Bull. Nutt. Orn. Club*, v. p. 169 (1880); *A. & E. Newton, Handb. Jamaica*, p. 115 (1881); *Salvin, Ibis*, 1886, p. 177 (Guiana); *id. Ibis*, 1889, p. 378 (Cozumel, Ruatan); *Berl. J. f. O.* 1889, p. 321 (Upper Amazons); *Gurney, Zool.* (3) xiv. p. 74 (1890: Hampshire).

Gallinula martinicensis, *Neuwied, Beitr. Naturg. Bras.* iv. p. 812 (1833: R. Itahype).

Ionornis martinicus, *Reichenb. Syst. Av.* p. xxi (1852); *Merrill, Proc. U.S. Nat. Mus.* i. p. 165 (1878: S. Texas); *Ridgw. op. cit.* iii. pp. 11, 202, 231 (1880); *id. Bull. U.S. Nat. Mus.* no. 21 p. 47 (1881); *Coues, Check-l. N. Amer. B.* p. 112 (1882); *Stearns, New England B.-Life*, ii. p. 292 (1883); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 384 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 676 (1884); *Cory, B. Haiti*, p. 162 (1884); *A. O. U. Check-l. N. Amer. B.* p. 143 (1886); *Wells, Proc. U.S. Nat. Mus.* ix. p. 629 (1886: Grenada); *Beckh. op. cit.* x. pp. 367, 651 (1887: Texas); *Wayne, Auk*, v. p. 109 (1888: South Carolina); *Chapm. t. c.* p. 270 (Florida); *Scott, Auk*, vi. p. 155 (1889: Florida); *Cory, B. West Ind.* p. 258 (1889); *Shufeldt, Ibis*, 1890, p. 129.

Porphyrula martinica, *Bp. C. R.* xliii. p. 599 (1856); *Gundl. Orn. Cuba*, p. 300 (1876).

Adult. General colour above olive-brown, strongly washed with green, especially on the scapulars and upper back; wing-coverts blue, washed with green, the marginal series brighter blue; bastard-wing and primary-coverts blue; quills dusky, externally dull green; the inner secondaries olive-brown; tail-feathers dark olive-brown; crown of head blackish, with a purplish wash, which extends over the sides of the face; hind neck bright blue, with a wash of bright green; entire under surface of body dull purplish blue, the under wing-coverts and axillaries lighter blue; greater lower coverts with hoary-white margins; under tail-coverts pure white: "bill red, green at the point; toes yellow; frontal shield sky-blue" (*Neuwied*). Total length 10 inches, culmen with frontal shield 1·7, wing 6·5, tail 2·3, tarsus 2·3, middle toe with claw 3.

Young. Entirely olive-brown above, with scarcely any wash of green; the rump, upper tail-coverts, and tail brown; wing-coverts pale greenish blue, washed with olive and tipped with a margin of ochreous; crown of head brown; sides of face and under surface of body light fulvous brown, deepening on the flanks; throat, abdomen, and under tail-coverts white; under wing-coverts and axillaries light bluish, edged with white: "toes not so pure yellow as in the adult, more greenish yellow; bill orange-coloured at the base, greenish colour for the remainder" (*Neuwied*).

Hab. Brazil and Amazonia, Guiana and Colombia, throughout Central America and the West India islands, north to Florida, Texas, and occurring occasionally as far as the New England States. Once in England.

a, b. ♂ ♀ ad. sk.	South Carolina, June 10 (*Hensh. Coll.*).	Salvin-Godman Coll.
c. ♂ ad. sk.	Ocklawaha River, Florida, April (*C. H. Merriam*: *Hensh. Coll.*).	Salvin-Godman Coll.

d–*m*. ♂ ad.; *n*–*z*. ♀ ad.; *a'*–*e'*. Juv. sk.	De Soto Co., Florida, April to Nov. (*W. R. Dean*).	Salvin-Godman Coll.
f'–*k'*. ♂ ad.; *l'*–*p'*. ♀ ad. sk.	Brownsville, Texas, April, May (*W. B. Armstrong*).	Salvin-Godman Coll.
q', *r'*. ♂ ♀ ad. sk.	Tampico, Mexico, June (*W. B. Richardson*).	Salvin-Godman Coll.
s'. ♀ ad. sk.	Oaxaca (*Fenochio*).	Salvin-Godman Coll.
t'–*w'*. Ad. sk.	Cozumel Island (*G. F. Gaumer*).	Salvin-Godman Coll.
x'. Ad. sk.	Ruatan Island (*G. F. Gaumer*).	Salvin-Godman Coll.
y'. Ad. sk.	Orange Walk, British Honduras, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.
z'. Ad. sk.	Guatemala.	Tweeddale Coll.
a'', *b''*. ♀ ad. sk.	Lake of Peten, Guatemala, April (*O. S.*).	Salvin-Godman Coll.
c''. Imm. sk.	Vera Paz, Guatemala.	Salvin-Godman Coll.
d''. ♂ ad. sk.	Costa Rica (*J. Carmiol*).	Salvin-Godman Coll.
e'', *f''*. ♂ ♀ ad. sk.	Lion Hill, Panama (*J. McLeannan*)	Salvin-Godman Coll.
g''. Ad.; *h''*, *i''*. Pull. sk.	Santa Lucia (*Semper*).	Salvin-Godman Coll.
k''. ♂ ad. sk.	Porto Rico (*G. Latimer*).	U.S. National Museum [P.].
l''. Imm. sk.	S. Vincent (*D. W. Smith*).	Salvin-Godman Coll.
m''. ♀ ad sk.	Antioquia, U.S. Colombia, (*T. K. Salmon*).	Salvin-Godman Coll.
n''. Ad. sk.	Andoas, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
o''. Ad. sk.	Cayenne.	H. C. Rothery, Esq. [P.].
p''. Ad. sk.	Demerara (*Hensh. Coll.*).	Salvin-Godman Coll.
q''. Ad. st.	British Guiana.	Sir R. Schomburgk [P.].
r''. Imm. sk.	Surinam (*Kappler*).	Salvin-Godman Coll.
s''. ♂ ad. sk.	Amazons (*A. R. Wallace*).	Salvin-Godman Coll.
t'', *u''*. Ad. sk.	Pernambuco, Brazil (*W. A. Forbes*).	Salvin-Godman Coll.
v''. Ad. sk.	Bahia, Brazil (*Dr. Wucherer*).	Salvin-Godman Coll.
w''. Ad. sk.	Araguay (*J. Natterer*).	Salvin-Godman Coll.
x''. Imm. sk.	At sea, 5° N. lat., 26° W. long.	No History.
y''. Imm. st.	South America.	J. Gould, Esq.
z''. Skeleton.	N. America.	Salvin-Godman Coll.
*a*³. Sternum.	Jamaica.	Gosse Coll.

3. Porphyriola parva.

La Favorite, *Buff. Hist. Nat. Ois.* viii. p. 207 (1781).
La Favorite de Cayenne, *D'Aubent. Pl. Enl.* ix. pl. 897.
Favourite Gallinule, *Lath. Gen. Syn.* iii. pt. i. p. 256 (1783).
Fulica parva, *Bodd. Tabl. Pl. Enl.* p. 54 (1783).
Fulica flavirostris, *Gm. Syst. Nat.* i. p. 699 (1788).
Porphyrio flavirostris, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 29 (1819); *Gray, List Gralle Brit. Mus.* p. 122 (1844).
Porphyrio simplex, *Gould, in Darwin's Voy.* '*Beagle*,' *Birds*, p. 133 (1841).
Porphyrio parva, *Gray, Gen. B.* iii. p. 589 (1845); *Scl. & Salv.*

P. Z. S. 1867, p. 592 (Amazon R.), 1868, p. 460; *Pelz. Orn. Bras.* pp. 318, 459 (1871); *Gray, Hand-l. B.* iii. p. 65, n. 10490 (1871); *Sel. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Graham Kerr, Ibis*, 1892, p. 149 (Pilcomayo).

Glaucestes flavirostris, *Reichenb. Syst. Nat.* p. xxi (1852).

Porphyrula martinica, pt., *Bp. C. R.* xliii. p. 599 (1856).

Gallinula parva, *Schl. Mus. Pays-Bas*, Ralli, p. 39 (1865: Surinam; Cayenne).

Ionornis parva, *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 384 (1884).

Adult female. General colour above bright reddish brown, washed with olive; lower back and rump uniform dark brown; upper tail-coverts and tail also dark brown, but with whitish edges to the tips of the feathers; wing-coverts light greenish blue; quills dusky, externally greyish blue, the inner series of coverts and the inner secondaries being coloured exactly like the back; centre of crown and hind neck reddish brown like the back; lores, eyebrows, sides of face, and entire sides of neck blue-grey, spreading on to the sides of the upper breast; checks, throat, and under surface of body white, including the under wing-coverts and axillaries; quills greyish brown below: "iris reddish brown; bill and shield light green; legs and toes yellow-ochre; claws orange-brown" (*H. Whitely, MSS.*). Total length 9·5 inches, culmen with frontal shield 1·2, wing 5, tail 2·7, tarsus 1·8, middle toe and claw 2·6.

Hab. Guiana and Amazonia to the interior of Brazil.

a. Ad. st.	River Amazon.	J. Gould, Esq.
b. Juv. sk.	River Amazon (*A. R. Wallace*).	Salvin-Godman Coll.
c. ♀ ad. sk.	Aunai, British Guiana, June 10 (*H. Whitely*).	Salvin-Godman Coll.

50. PORPHYRIO *.

Type.

Porphyrio, *Briss. Orn.* v. p. 522 (1760) ..... P. porphyrio.

Cæsarornis, *Reichenb. Natürl. Syst.* p. xxi (1852). P. poliocephalus.

[Cf. *Salvadori, Atti R. Accad. Sci. Torino*, xiv. pp. 1165–1170; *Elliot, Str. F.* vii. pp. 6–25 (1878).]

Range. The whole of Africa and Madagascar, the Mediterranean countries, eastwards to India, and through the Burmese countries to Southern China; thence through the Malayan Archipelago to Australia and New Zealand and the South Sea Islands.

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* I have not been able to determine the following species:—

1. Porphyrio palliatus.

Porphyrio indicus, var. palliatus, *Brüggem. Abhandl. nat. Ver. Bremen*, v. p. 89 (1876).

Porphyrio calvus, var. palliatus, *Blasius, Zeitschr.* iii. pp. 154, 179 (1886).

Hab. Unknown.

Key to the Species.

a. Inner secondaries deep purple, like the rest of the back and wings; tail-feathers blackish, slightly washed with purple .... *cæruleus*, p. 194.
b. Inner secondaries green or bluish green; tail-feathers green, or black washed with green.
a'. Mantle and upper back olive-green like the inner secondaries; rest of wing purplish blue like the under surface ..... *porphyrio*, p. 195.
b'. Mantle and upper back purplish blue; wings brighter and more greenish blue, but contrasting with the breast, which is purplish blue like the back.
a''. Sides of body purplish blue ..... *poliocephalus*, p. 197.
b''. Sides of body lighter blue ..... *bemmeleni*, p. 200.
c. Inner secondaries black or brown, sometimes olive-brown, like the rest of the back.
c'. Wing-coverts black or brown like the back, with blue round the bend of the wing.
c''. Thighs indigo or deep blue, contrasting with the purple under surface; frontal shield very much swollen, and inclined to be ridged on the sides.
a'''. Without any distinct gloss of olive-greenish on the back and scapulars, which are often tinged or washed with blue; outer greater coverts for the most part blue, or washed with blue.
a[1]. Head and sides of face slightly glossed with purple..... *calvus*, p. 200.
b[1]. Head and sides of face and throat mostly hoary grey ..... *edwardsi*, p. 201.
b'''. With a distinct wash of olive-green on the back and scapulars, the outer greater coverts with scarcely any blue on them ..... *ellioti*, p. 202.

The following bird was also probably a *Porphyrio*:—

PORPHYRIO CÆRULESCENS.

Oiseau bleu, *D. B.* (*Anon.*) 1669; *cf. Strickl. & Melville, Dodo, etc.*, p. 59.
Aptero rnis cærulescens, *Sélys-Longchamps, Rev. Zool.* 1848, p. 294.
Cyanornis erythrorhynchus, *Bp. Consp.* ii. p. 3 (1854).
Porphyrio (Notornis?) cærulescens, *Schl. Ibis*, 1866, pp. 146–168; *id. Ann. Sci. Nat.* (5) vi. pp. 25–49 (1866).

Formerly living in Réunion.

The following is an extinct species from Queensland:—

PORPHYRIO MACKINTOSHI.

Porphyrio mackintoshi, *De Vis, Proc. Linn. Soc. N.S. Wales* (2) vi. p. 440, pl. xxiv. fig. 2*a* (1892).

d''. Thighs purplish or purplish brown, like the flanks.
c'''. With a throat-patch of brighter blue, which extends on to the fore neck and chest.
*c*⁴. Back generally black.
*a*⁵. Larger: tarsus 3·6-3·7 inches.. *bellus*, p. 202. / *chathamensis*, p. 202.
*b*⁵. Smaller: tarsus 3 inches ..... *smaragdinus*, p. 203.
*d*⁴. Back generally brown ..... *samoensis*, p. 204.
d'''. With no distinct patch of blue on the throat, the whole of the under surface being uniform..... *melanonotus*, p. 205. / *pelewensis*, p. 206.
d'. Wing-coverts blue-grey, contrasting with the brown back ..... *pulverulentus*, p. 207.

1. Porphyrio cæruleus.

The Purple Bird, *Albin*, *Nat. Hist. B.* iii. p. 79, pl. 84 (1747).
The Purple Water-Hen, *Edwards*, *Nat. Hist. B.* ii. p. 87, pl. 87 (1747).
La Poule Sultane, ou Le Porphyrion, *Buff. Hist. Nat. Ois.* viii. p. 194 (1781).
Purple Gallinule, *Lath. Gen. Syn.* iii. pt. i. p. 254 (1785).
Fulica cærulea, *Vandelli*, *Flor. et Faun. Lusit. Spec. in Mem. Acad. Real Lisb.* i. p. 37 (1797).
Fulica porphyrio (*excl. syn.*), *Gm. Syst. Nat.* i. p. 699 (1788).
Porphyrio hyacinthus, *Temm. Man. d'Orn.* p. 698 (1820); *Werner*, *Atlas*, *Gralles*, pl. 6 (1827); *Gould*, *B. Eur.* iv. pl. 340 (1837); *Schl. Rev. Crit.* p. cii (1844); *Costa*, *Faun. Regno Napoli*, pt. i. p. 69, pt. ii. p. 35, tav. xiii. (1857); *Salvin*, *Ibis*, 1859, p. 357 (Eastern Atlas): *Tristr. Ibis*, 1860, p. 80 (Tuggurt), p. 159 (Lake Halloula); *Homeyer*, *J. f. O.* 1862, p. 430 (Balearic Isles); *Bree*, *B. Eur.* iv. pl. to p. 77 (1863); *Drake*, *Ibis*, 1867, p. 428 (Morocco); *Wright*, *Ibis*, 1869, pp. 253, 254 (Malta); *Saunders*, *Ibis*, 1871, p. 225 (S. Spain); *R. Gray*, *B. W. Scotl.* p. 337 (1871); *Irby*, *B. Gibr.* p. 146 (1875: Tangier, S. Spain); *Koenig*, *J. f. O.* 1888, p. 275 (Tunis).
Porphyrio hyacinthus, *Steph. Gen. Zool.* xii. pt. i. p. 256 (1824).
Porphyrio chlorynothus, *Roux*, *Orn. Prov.* pl. 333 (1825, *nec Vieill.*).
Porphyrio antiquorum, *Bonap. Faun. Ital.*, *Ucc.* tav. 44 (1832–41); *id. Comp. List B. Eur & N. Amer.* p. 54 (1838); *Salvad. Faun. Ital.*, *Ucc.* p. 234 (1871); *Romita*, *Agg. Orn. Pugliesi*, p. 13 (1890: Lake Lesina).
Porphyrio veterum (*nec S. G. Gmelin*), *Gray*, *Gen. B.* iii. p. 598 (1845); *Reichenb. Handb.*, *Fulicariæ*, tab. cviii. figs. 1092–93 (1852); *Jaub. et Barth.-Lapomm. Rich. Orn.* p. 492 (1859: Basse Camargue); *Loche*, *Expl. Sci. Algér.*, *Ois.* ii. p. 345 (1867); *Smith*, *Ibis*, 1868, p. 455 (Portugal); *Fritsch*, *Vög. Eur.* tab. xliii. fig. 7 (1870); *Saunders*, *Ibis*, 1871, p. 225 (S. Spain); *Gray*, *Hand-l. B.* iii. p. 64, n. 10476 (1871); *Brooke*, *Ibis*, 1873, p. 336 (Sardinia); *Dresser*, *B. Eur.* vii. p. 299, pl. 500 (1876); *Elliot*, *Str. F.* vii. p. 14 (1878).
Porphyrio cæsius (*ex Barrère*), *Schl. Mus. Pays-Bas*, Ralli, p. 52 (1865); *Degl. et Gerbe*, *Orn. Eur.* ii. p. 265 (1867); *Doderlein*, *Avif. Sicil.* p. 202 (1869); *Hancock*, *Nat. Hist. Trans. Northumb. and Durham.* vi. p. 126 (1874).
Porphyrio cæruleus, *Sel. Ibis*, 1879, p. 186 (Bagdad, Hedjaz); *id.*

Ibis, 1881, p. 178; *Gigl. t. c.* p. 110; *id. Iconogr. Avif. Ital.* fasc. xi. (1881); *B. O. U. List Brit. B.* p. 149 (1883); *Tristr. Faun. & Flor. Palest.* p. 125 (1884: Marshes of the Huleh); *Reid, Ibis*, 1885, p. 252 (Marocco); *Gigl. Arif. Ital.* p. 355 (1886); *Salvad. Elench. Ucc. Ital.* p. 237 (1886); *Gigl. Avif. Ital.* 1st Resoc. p. 551 (1889); *More, Zool.* (3) xiv. p. 24 (1890: Ireland); *Brusina, Orn. Croat.* p. 84 (1890).

Adult. General colour above dull purplish blue including the wings, which are slightly brighter purple on the marginal coverts; quills black, externally purplish blue; the innermost secondaries almost entirely of the latter colour; tail-feathers black, externally washed with purple; crown of head like the back; region of the eye and lores blackish; the feathers behind the eye, ear-coverts, sides of face, cheeks, throat, fore neck, and chest glistening blue; the entire breast, abdomen, and sides of body as well as the thighs sooty blackish slightly glossed with purple; under tail-coverts white; under wing-coverts like the breast, the greater series and lower primary-coverts black like the quill-lining: "frontal plate and bill bright sealing-wax red; legs flesh-red; iris lake-red" (*H. E. Dresser*). Total length 16 inches, culmen and frontal shield 2·8, wing 10, tail 3·5, tarsus 3·85, middle toe and claw 4·9.

Hab. Countries bordering the Mediterranean east to Mesopotamia. Spain and Portugal to the South of France, eastwards to Sicily; accidental in Italy and probably other countries to the eastward.

a. Ad. sk.	Algeria.	Purchased.
b. ♂ ad. sk.	Catania, Sicily, March 30 (*E. C. Taylor*).	Shelley Coll.
c, *d*, *e*. Skeletons.	Europe.	Purchased
f. Skeleton (skull wanting).	Europe.	Purchased.
g. Sternum.	Algeria.	Purchased.

2. Porphyrio porphyrio.

La Poule Sultane, *Briss. Orn.* v. p. 22, pl. 40. fig. 1 (1760).
Fulica porphyrio, *Linn. Syst. Nat.* i. p. 258 (1766); *Forster, Descr. An.* p. 49 (1844).
La Talève de Madagascar, *Daubent. Pl. Enl.* ix. pl. 810.
Grey-headed Gallinule, *Lath. Gen. Syn. Suppl.* i. p. 376 (1787).
Gallinula porphyrio, *Lath. Ind. Orn.* ii. p. 768 (1790).
Gallinula madagascariensis, *Lath. Ind. Orn. Suppl.* p. lxviii (1801).
Porphyrio chlorynothos, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 24 (1819).
Porphyrio smaragnotus, *Temm. Man.* ii. p. 700 (1820); *Gray, List Gallæ Brit. Mus.* p. 121 (1844); *Gurney, Ibis*, 1859, p. 249 (Natal); *Hartl. J. f. O.* 1861, p. 272 (Keta, Slave Coast); *Dödrl. Arif. Sicil.* p. 204 (1869); *Finsch & Hartl. Vög. Ost-Afr.* p. 783 (1870); *Salvad. Faun. Ital., Ucc.* p. 234 (1871); *Gray, Hand-l. B.* iii. p. 64, n. 10480 (1871); *Gurney in Anderss. B. Damara-Ld.* p. 325 (1872: Damara, Gt. Namaqua-Ld., Lake Regions); *Dresser, B. Eur.* vii. p. 303, pl. 501 (1876); *Hartl. Vög. Madag.* p. 345 (1877); *Bocage, Orn. Angola*, p. 484 (1881: Rio Coroca, Mossamedes); *Milne-Edwards & Grandid. Hist. Nat. Madag.*,

Ois. p. 587, pls. 242-244 (1832); *B. O. U. List Brit. B.* p. 150 (1883).

Porphyrio erythropus, *Steph. Gen. Zool.* xii. pt. i. p. 255, pl. 31 (1824); *Layard, B. S. Afr.* p. 341 (1867).

Porphyrio antiquorum (*nec Bp.*), *Gray, List Gralla Brit. Mus.* p. 120 (1844).

Porphyrio madagascariensis, *Gray, Gen. B.* iii. p. 598 (1845); *Hartl. Faune Madag.* p. 81 L (1861); *Scl. Ibis*, 1861, p. 116 (Mauritius); *id. P. Z. S.* 1863, p. 165 (Hivondro); *Roch & E. Newt. Ibis*, 1863, p. 173 (Tamatave); *Schl. Mus. Pays-Bas*, Ralli, p. 54 (1865: Senegal).

Porphyrio hyacinthinus (*nec Temm.*), *Rüpp. Syst. Uebers.* p. 128 (1845); *Shelley, B. Egypt*, p. 277 (1872: Fayoom).

Porphyrio chloronotus, *Brehm, J. f. O.* 1853, Extra-Heft, p. 103; *Loche, Expl. Sci. Algér., Ois.* ii. p. 346 (1867); *Selys-Longch. Ibis*, 1870, p. 454 (Sicily); *Gray, Hand-l. B.* iii. p. 65, no. 10488 (1871); *Meyer, Abbild. Vogel-Skelett.* pl. xxxix. (1883); *Gurney, Zool.* 1886, p. 71; *Oust. Bibl. Haut Etudes*, xxxi. Art. x. p. 11 (1886: Somali).

Porphyrio ægyptiacus, *Heugl. Syst. Uebers.* p. 65 (1856).

Porphyrio sp., *Kirk, Ibis*, 1864, p. 335 (Quilimane).

Porphyrio smaragdonotus, *Gurney, Ibis*, 1868, p. 469 (Natal); *Brehm, J. f. O.* 1871, pp. 34–39; *Heugl. Orn. N.Ost-Afr.* ii. pt. i. p. 1230 (1873: Lower Egypt; Lake Menzaleh); *Ayres, Ibis*, 1880, p. 271 (Transvaal); *Sharpe, ed. Layard's B. S. Afr.* p. 619 (1884); *Fischer, J. f. O.* 1885, p. 117 (Bagamoyo); *Salvad. Elench. Ucc. Ital.* p. 238 (1887); *Gigl. Avif Ital.* p. 356 (1886); *Schalow, J. f. O.* 1887, p. 226 (Mpara); *Reichen. J. f. O.* 1889, p. 268 (Quilimane); *Gigl. Avif. Ital.* 1st Resoc. p. 551 (1889); *More, Zool.* (3) xiv. p. 24 (1890: Ireland).

Porphyrio smaragdonotus, *Gurney, Zool.* 1879, p. 458; *Gigl. Ibis*, 1881, p. 211 (Sicily); *Brusina, Orn. Croat.* p. 84 (1890); *Sibree, Ibis*, 1892, pp. 105, 114.

Adult male. General colour above green with a slight wash of blue on the mantle; the scapulars and feathers of the lower back, rump, and upper tail-coverts somewhat olivaceous, with green edgings to the feathers; the wing-coverts purplish blue, brighter blue along the lesser series; bastard-wing, primary-coverts, and quills black, externally greenish blue; inner secondaries green like the back and inner greater coverts; tail-feathers brown, externally olive-green; crown of head, sides of neck, hind neck, and under surface of body purplish blue; sides of face, ear-coverts, throat, and fore neck bright greenish blue; lower abdomen blackish; under tail-coverts white; under wing-coverts purplish blue as well as the axillaries; lower greater coverts and lower primary-coverts black, like the quill-lining: "bill and frontal shield bright lake-red; feet rosy; soles brick-red; iris brick-red" (*Heuglin*). Total length 16 inches, culmen with frontal shield 2·75, wing 9·6, tail 3·4, tarsus 3·35, middle toe and claw 4·5.

Adult female. Similar to the male in colour. Total length 16 inches, culmen with frontal shield 2·55, wing 9·7, tail 3·4, tarsus 3·4, middle toe and claw 4·6.

Young. Differs from the adult in being everywhere duller in colour; the back dull olive-green, with scarcely any blue on the

wings, the breast and sides of the body ashy with an olive tinge; head, neck, and thighs dull ashy purple.

Hab. The greater part of Africa and Madagascar, ranging north to Egypt, and occasionally occurring in the countries of the Mediterranean.

a, *b*. Ad. sk.	Egypt.	Sir J. Bowring [P.].
c. ♂ ad.; *d*, *e*. ♀ ad. sk.	Fayoom, Egypt, March (*G. E. S.*).	Shelley Coll.
f. ♂ ad. sk.	Damietta (*Filipponi*).	Shelley Coll.
g. ♀ ad. sk.	Zulu-Land, June (*Gordge*).	Shelley Coll.
h, *i*. ♂ ad.; *k*, *l*. ♀ et juv. sk.	Potchefstroom, Transvaal, May, July, Aug., Oct. (*F. Ayres*).	Gurney Coll.
m, *n*. ♀ ad. sk.	Natal (*T. Ayres*).	Tweeddale Coll.
o. Ad. st.	Cape of Good Hope.	J. Gould, Esq.
p. ♂ ad. sk.	Madagascar (*Waters*).	Shelley Coll.
q. Ad. sk.	Madagascar.	J. Plant [C.].
r. Ad. sk.	Tamatave, Madagascar.	J. G. Haggard, Esq. [P.].

3. Porphyrio poliocephalus.

Porphyrio veterum, *S. G. Gm. Reis. Russl.* iii. p. 79, note, tab. 12 (1774: Persia and Caspian Sea).

Gallinula poliocephala, *Lath. Ind. Orn. Suppl.* p. lxviii (1802).

Grey-headed Gallinule, *Lath. Gen. Syn. Suppl.* ii. p. 375 (1802).

Fulica porphyrio, *Pall. Zoogr. Rosso-Asiat.* ii. p. 156 (1811).

Porphyrio poliocephalus, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 39 (1819); *Blyth, Cat. B. Mus. As. Soc.* p. 283 (1849: Calcutta); *Layard, Ann. & Mag. Nat. Hist.* xiv. p. 268 (1854); *Irby, Ibis*, 1861, p. 246 (Oudh); *Jerd. B. Ind.* iii. p. 713 (1864); *Blyth, Ibis*, 1867, p. 71; *Bearan, Ibis*, 1868, p. 395 (Barrackpore); *Godwin-Aust. J. A. S. Beng.* xxxix. p. 274 (1870: Khasia Hills); *Blanf. op. cit.* xl. p. 276 (1871: Wardha Valley); *Holdsw. P. Z. S.* 1872, p. 475 (Colombo); *Hayes Lloyd, Ibis*, 1873, p. 418 (Kathiawar); *Ball, Str. F.* ii. p. 432 (1874: Chota Nagpur); *Blyth & Wald. B. Burm.* p. 161 (1875: Aracan); *Butler, Str. F.* iv. p. 20 (1876: N. Guzerat); *Hume, t. c.* p. 20, note (Sind, etc.); *Oates, Str. F.* v. p. 165 (1877: Pegu); *Hume & Davison, Str. F.* vi. p. 464 (1878: Tenasserim); *Elliot, Str. F.* vii. p. 22 (1878); *Cripps, t. c.* p. 305 (Faridpur: breeding); *Hume, Str. F.* viii. p. 113 (1879); *Legge, B. Ceylon*, p. 795 (1879); *Butler, Cat. B. Sind etc.* p. 66 (1879); *id. Cat. B. S. Bomb. Pres.* p. 79 (1880: S. Konkan); *Bingham, Str. F.* ix. p. 197 (1880: Thoungyeen); *Hume, t. c.* p. 259 (Cachar); *Barnes, Str. F.* ix. p. 459 (1881: Chaman); *Parker, t. c.* p. 483 (Ceylon: breeding); *Reid, Str. F.* x. p. 72 (1881: Lucknow); *Simson, Ibis*, 1882, p. 94 (E. Bengal); *Swinh. t. c.* p. 122 (Candahar); *Davidson, Str. F.* x. p. 322 (1882: Khandeish); *Oates, Handb. B. Brit. Burm.* ii. p. 351 (1883); *Parker, Ibis*, 1883, p. 194; *Sceb. Ibis*, 1884, p. 429 (Lenkoran); *Murray, Vertebr. Faun. Sind*, p. 260 (1884); *C. Swinh. & Barnes, Ibis*, 1885, p. 135 (Mhow: breeding); *Parker, Ibis*, 1886, p. 187; *McGregor, Str. F.* x. p. 441 (1887: Mahratta Country); *Hume, Str. F.* xi. p. 326 (1888: Manipur); *St. John, Ibis*, 1889, p. 177 (Quetta); *Oates, ed. Hume's Nests & Eggs Ind. B.* iii. p. 384 (1890).

Porphyrio smaragnotus (*nec Temm.*), *Sykes, P. Z. S.* 1832, p. 165 (Deccan).

Porphyrio hyacinthinus (*nec Temm.*), *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 275 (1840); *Hodgs. Icon. ined. in Brit. Mus., Grallæ*, pl. 117 (no. 562); *id. in Gray's Zool. Misc.* p. 86 (1844).

Porphyrio indicus (*nec Horsf.*), *Gray, List Grallæ etc. Brit. Mus.* p. 120 (1844); *id. Gen. B.* iii. p. 598 (1845); *id. List Mamm. etc. Nepal pres. Hodgs.* p. 143 (1846).

Porphyrio neglectus, *Schl. Mus. Pays-Bas*, Ralli, p. 53 (1865); *Gray, Hand-l. B.* iii. p. 64, no. 10477 (1871); *Hume, Nests & Eggs Ind. B.* p. 594 (1873); *id. Str. F.* i. pp. 125, 136, 249 (1873: Sind); *id. op. cit.* ii. p. 483 (1874: Yeaboo); *id. op. cit.* iii. p. 185 (1875: Pegu); *Blanf. East. Pers.* ii. p. 289 (1876: Bagdad).

Porphyrio veterum, *Radde, Orn. Cauc.* pp. 40, 380, pl. xxi. figs. 3, 4, pl. xxiv. (1884); *Sel. Ibis*, 1885, p. 111, 1886, p. 521.

Porphyrio cæruleus (*nec Vandelli*), *Seeb. Ibis*, 1882, p. 227 (Astrachan), 1883, p. 27 (Caucasus).

Adult male. General colour above purplish blue, the wings brighter and more greenish blue; innermost secondaries slightly washed with green; tail-feathers blackish, externally washed with blue; hinder crown and nape purplish blue like the hind neck, but a little more dusky; region of the eye ashy; sides of face, throat, fore neck, and chest vivid greenish blue; entire breast, sides of body, and flanks bright purplish blue; thighs dull greenish blue; under tail-coverts white; under wing-coverts and axillaries dark greenish blue, the greater series and the lower primary-coverts blackish like the quill-lining: "anterior half of bill dull red, the basal half and the whole culmen nearly to the tip blood-red; round the nostrils white; central portion of the frontal shield deep red, the edges brighter red; eyelids plumbeous; legs and toes red, the joints more or less brown; claws dark horn-colour" (*E. W. Oates*); "iris red" (*W. V. Legge*). Total length 18 inches, bill and frontal shield 2·6, wing 9·9, tail 3·6, tarsus 3·4, middle toe and claw 4·65.

Adult female. Similar to the male in colour. Total length 17 inches, culmen and frontal shield 2·5, wing 9·2, tail 3·7, tarsus 3·4, middle toe and claw 4·5.

In the majority of specimens of this species the sides of the face, throat, hinder crown, and nape are ashy grey, with a little blue on the face. This ashy-grey colour on the head and neck I believe to be caused by the abrasion and wearing of the feathers.

Young. Covered with greyish down, the feathers as they appear resembling those of the adult; abdomen whitish.

After the first moult young birds resemble the adult, but are not so brilliant in colour, and have the lower breast and abdomen ashy grey.

Many specimens killed in the breeding season have greyish or isabelline margins to the feathers, which may be peculiar to the full plumage or may be a mark of the young birds of the previous year.

Hab. From the Caucasus to Mesopotamia, Afghanistan, and throughout the Indian Peninsula and Ceylon and the Burmese countries to Tenasserim.

a. Ad. st.	Bagdad, Mesopotamia.	Sir Kenneth Loftus [P.].
b. ♂ ad. sk.	Mesopotamia (*Commander Jones*).	India Museum.
c. ♀ ad. sk.	Marshes of Babylonia (*Commander Jones*).	India Museum.
d. ♀ ad. sk.	Candahar, Afghanistan, March 13.	Colonel Swinhoe [P.].
e. ♂ ad. sk.	Peshawur (*Griffith*).	India Museum.
f, *g*. Ad. sk.	Kurnaul, Punjab, Feb.	Hume Coll.
h. ♂ ad. sk.	Gurgaon Distr., Aug. 1 (*W. N. Chill*).	Hume Coll.
i. Ad. sk.	Rajpootana.	Hume Coll.
k. ♀ ad.; *l*. Ad. sk.	Etawah, Aug. 19.	Hume Coll.
m–*p*. ♂ ♀ ad. sk.	Jhansie, Aug., Sept.	Hume Coll.
q. ♂ ad. sk.	Allahabad, Aug.	Hume Coll.
r. Ad. sk.	Oudh, March.	Hume Coll.
s, *t*, *u*. Ad. sk.	Oudh.	Pinwill Coll.
v. Ad.; *w*, *x*. Juv. sk.	Nepal.	Hodgson Coll.
y. Ad. st.	Nepal.	Hodgson Coll.
z, *a'*. ♂ ♀ ad. sk.	Nepal Terai, March (*Biddulph*).	Tweeddale Coll.
b'. Ad. sk.	Kamroop, Assam, Feb. (*A. W. Chennell*).	Tweeddale Coll.
c'. Ad. sk.	Cachar (*J. Inglis*).	Hume Coll.
d', *e'*, *f'*. ♂ ad. et imm.; *g'*, *h'*, *i'*. ♀ ad. sk.	Logtak Lake, Manipur, March (*A. O. H.*).	Hume Coll.
k'. Ad. sk.	Dacca.	Hume Coll.
l'. Ad. sk.	Calcutta, Dec. (*J. Biddulph*).	Tweeddale Coll.
m'. Ad. sk.	Calcutta, Feb. (*A. O. H.*).	Hume Coll.
n'. Ad. sk.	Raipur.	Hume Coll.
o'. ♂ ad. sk.	Saugor.	Hume Coll.
p'. ♂ ad. sk.	Bhundara, March 10.	Hume Coll.
q'. ♂ ad. sk.	Depalpur, Jan. 11.	Colonel Swinhoe [P.].
r'. ♀ ad. sk.	Dhulia, Khandeish, May 3 (*J. Davidson*).	Hume Coll.
s'. Ad. sk.	Deccan (*Sykes*).	India Museum.
t'. Ad. sk.	Madras.	India Museum.
u'. Ad. sk.	Cochin (*F. Day*).	India Museum.
v'. Ad. sk.	Trevandrum, Travancore, June 21 (*F. Bourdillon*).	Hume Coll.
w', *x'*. Ad. sk.	Ceylon.	Colonel Legge [P.].
y'. ♂ ad. sk.	Ceylon, Jan. 17 (*S. Chapman*).	Tweeddale Coll.
z'. Ad. sk.	Ceylon (*H. Nevill*).	Tweeddale Coll.
a''–*d''*. Ad. sk.	Tonghoo, Burma, May (*R. G. W. R.*).	Tweeddale Coll.
e''. ♂ ad. sk.	Pegu, Jan. 9.	Oates Coll.
f''. ♀ ad. sk.	Thoungyeen Valley, Dec. 30 (*C. T. Bingham*).	Hume Coll.

g''. ♀ ad. sk.	Assoon, March 6 (*W. Limborg*).	Tweeddale Coll.
h'', *i''*. ♀ ad. sk.	Assoon (*W. Davison*).	Hume Coll.
k''. Ad. sk.	Yeaboo, March 2 (*W. Davison*).	Hume Coll.
l', *m''*, *n''*. Skeletons.	India.	Zoological Society.

4. Porphyrio bemmeleni.

Porphyrio bemmeleni, *Büttik. Notes Leyd. Mus.* xi. p. 191 (1889: Lake Toba, Sumatra).

Adult (type of species). Similar to *P. poliocephalus*, but differs in having a grey wash over the head, face, and throat, and in having the sides of the body blue instead of purplish blue. (*Mus. Lugd.*)

Hab. Sumatra.

5. Porphyrio calvus.

Porphyrio calvus, *Vieill. N. Dict. d'Hist. Nat.* xxviii. p. 28 (1819); *Elliot, Str. F.* vii. p. 16 (1878).

Porphyrio indicus, *Horsf. Trans. Linn. Soc.* xiii. p. 194 (1820); *Gray, Gen. B.* iii. p. 598 (1845); *Schl. Mus. Pays-Bas*, Ralli, p. 55 (1865); *Finsch & Hartl. Faun. Centralpolyn.* p. 170 (1867); *Gray, Hand-l. B.* iii. p. 64, no. 10481 (1871); *Walden, Tr. Z. S.* vii. p. 92 (1872, pt.); *Salvad. Ucc. Born.* p. 342; *Meyer, Ibis*, 1879, p. 141 (Celebes); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlii. p. 113 (1883); *Blasius, J. f. O.* 1884, p. 219 (S.E. Borneo; breeding); *Guillem. P. Z. S.* 1885, p. 560 (Limbotto); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlvi. p. 222 (1887), xlix. p. 416 (1889: Sumatra); *Everett, Journ. Straits Branch Asiat. Soc.* 1889, p. 203.

Adult male. General colour above dusky blackish, but glossed with purplish blue on the mantle and to a less extent on the lower back and rump; scapulars and wings olive-greenish; the lesser wing-coverts cobalt-blue; median and greater coverts olive-green with bluish bases; bastard-wing, primary-coverts, and quills dusky blackish, externally dull cobalt-blue; inner secondaries olive-green; tail-feathers blackish, washed with olive; crown of head blackish, as also the feathers above the eye; nape and hind neck, as also the sides of the neck, rich purplish blue; lores, eyebrow, and sides of face dusky blackish, with a few spots of blue on the cheeks; throat dusky, spotted with greenish blue; lower throat, fore neck, and chest bright greenish cobalt, contrasting with the rest of the under surface, which is rich purplish blue; abdomen blackish; sides of lower flanks and thighs greenish blue; vent black; under tail-coverts white; under wing-coverts greenish blue; axillaries black, edged with greenish blue; quills below black, like the lower greater coverts and lower primary-coverts: "feet deep flesh-colour; claws light horn-colour; iris carmine" (*A. J. Vorderman*). Total length 15·5 inches, culmen with frontal shield 2·45, wing 9·4, tail 3·5, tarsus 3·25, mid toe and claw 3·8.

Other Javan specimens, probably females, do not show such a

distinct wash of blue or green upon the back, being in fact more dingily coloured. None of the Macassar birds show so much green lustre on the back as those from Java, but they have the same greenish-blue thighs and are apparently specifically identical. The Javan bird when in full plumage seems to have two swollen lateral ridges to the hinder part of the frontal shield.

The Macassar skins have rather smaller bills, and have not the lateral ridges of the frontal shield so developed as in Javan examples, but I believe that the birds from Southern Celebes will be found not to be distinct from the Javan bird. It is probable also that the species extends to Northern Celebes, as some of the specimens from Gorontalo in the Leyden Museum appear to be the same as Javan birds, while those from Ayer Pannas and Tondano are *P. smaragdinus*.

Hab. Java, Sumatra, S.E. Borneo, and Southern Celebes.

a–d. Ad. sk.	Java (*Horsfield*).	India Museum. (Types of *P. indicus*.)
e, f. Imm. sk.	Java.	Tweeddale Coll.
g. ♂ ad. sk.	Java (*Diard*).	Salvin-Godman Coll.
h, i. ♂ ♀ ad. sk.	Macassar, Celebes.	Wallace Coll.
k, l. Ad. sk.	Macassar (*Wallace*).	Tweeddale Coll.

6. Porphyrio edwardsi.

Porphyrio indicus, *Eyton* (*nec Horsf.*), *P. Z. S.* 1839, p. 107 (Malacca).
Porphyrio edwardsi, *Elliot*, *Ann. N. H.* (5) i. p. 98 (1878: Cochin China; Siam); *id. Str. F.* vii. p. 23, pl. 2 (1878); *Tiraut*, *Bull. Comm. Agric. Cochin Chine*, (3) i. p. 160 (1879).
Porphyrio smaragdinotis (*nec T.*), *Sel. Ibis*, 1864, p. 246, note (Siam).
Porphyrio calvus (*nec V.*), *Kelham*, *Ibis*, 1882, p. 186 (Perak); *Hume*, *Str. F.* viii. p. 70 (1879: Malacca).

Adult male. Similar to *P. calvus*, but generally hoary grey on the sides of the face and throat as well as the hind neck, therein resembling *P. poliocephalus*: "bill dark red, shaded with brown; iris deep red" (*W. Davison*). Total length 18 inches, culmen and frontal shield 2·8, wing 10·1, tail 3·4, tarsus 3·45, middle toe and claw 4·35.

This species is to my mind very doubtfully distinct from *P. calvus* of Java, for I believe that the hoary grey appearance of the face and neck is merely caused by the abrasion of the feathers, as is apparently the case with *P. poliocephalus*. Dark-faced specimens occur in the Malayan Peninsula which I can hardly distinguish from *P. calvus*.

Hab. From Cochin China and Siam, south to the Malayan Peninsula.

a–e. Ad. sk.	Cochin China.	M. E. Pierre [P.].
f–k. Ad. sk.	Penang (*Dr. Cantor*).	India Museum.
l–o. Ad. sk.	Klang, Salangore, Jan. 20 (*W. Davison*).	Hume Coll.

7. Porphyrio ellioti.

Porphyrio indicus (*nec Horsf.*), *Scl. P. Z. S.* 1877, p. 556.
Porphyrio ellioti, *Salvad. Atti R. Accad. Torino*, xiv. p. 1168 (1879), xviii. p. 322 (1882); *id. Orn. Papuasia etc.* iii. p. 283 (1882).
Porphyrio calvus (*nec V.*), *Scl. Rep. Voy.* 'Challenger,' ii. p. 33 (1881).
Porphyrio neobritannicus, *Meyer, Abhandl. Mus. Dresden*, no. 4, p. 15 (1891).

Adult male (type of species). Only distinguished from *P. calvus* by its dingy-coloured thighs, which are of a dull indigo, and by the flattened frontal shield, which shows no signs of the posterior swollen ridges. Total length 15·5 inches, culmen with frontal shield 2·8, wing 8·9, tail 3, tarsus 3·2, middle toe and claw 4.

This race is scarcely to be separated from *P. calvus* from Java. It seems to be a somewhat larger bird, and to have the wing-coverts less mixed with blue; nor is there any blue wash on the back. I do not attach much importance to the greenish gloss of the upper surface, which Count Salvadori considers to be one of the specific characters; in my opinion this is only due to the fresh condition of the plumage. It is, of course, difficult to judge of the validity of any species of *Porphyrio* without a large series for comparison.

Hab. Admiralty Islands and New Britain.

a. ♂ ad. sk.	Admiralty Islands.	Voy. H.M.S. 'Challenger.' (Type of species.)
b, *c*. Ad. sk.	Viti Levu, Fiji Islands (*F. M. Rayner*).	Voy. H.M.S. 'Herald.'

8. Porphyrio bellus.

Porphyrio bellus, *Gould, P. Z. S.* 1840, p. 176; *id. B. Austr.* vi. pl. 70 (1841); *Reichenb. Vög. Neuholl.* p. 213 (1850); *id. Handb., Fulicariæ*, tab. cix. fig. 1103 (1852); *Gould, Handb. B. Austr.* ii. p. 322 (1865); *Schl. Mus. Pays-Bas*, Ralli, p. 58 (1865); *Diggles, Orn. Austr.* pl. 110 (c. 1870); *Gray, Hand-l. B.* iii. p. 64, no. 10479 (1871); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 199 (1878); *Elliot, Str. F.* vii. p. 15 (1878); *Ramsay, Tab. List Austr. B.* p. 21 (1888); *id. Proc. Linn. Soc. N. S. W.* (2) ii. p. 177 (1888: Derby).

Adult. Back black; a distinct shade of verdigris-blue on the throat and fore neck; thighs purplish like the flanks: "bill red; knees, lower part of tarsi, and inside of feet dark greenish grey; remainder of feet and legs dark green" (*J. Gould*). Total length 17·5 inches, culmen with frontal shield 3, wing 10·6, tail 3·6, tarsus 3·6, middle toe and claw 4·6.

Hab. Western Australia.

a. Ad. sk.	Australia.	Tweeddale Coll.
b. Ad. sk.	W. Australia (*J. T. Cockerell*).	Salvin-Godman Coll.

9. Porphyrio chathamensis.

Porphyrio melanotus (*nec T.*), *Travers, Trans. N. Z. Inst.* i. p. 125 (1868).
Porphyrio chathamensis, *Sharpe, Ibis*, 1893, p. 531.

Adult. Similar to *P. bellus*, but with the throat entirely black like the sides of face and crown; fore neck and chest with a shade of deep blue, contrasting with the purple of the underparts; the lesser wing-coverts also brighter blue than the breast; thighs entirely black, like the lower abdomen. Total length 17 inches, culmen and frontal shield 2·6, wing 10·3, tail 4·3, tarsus 3·7, middle toe and claw 3·8.

Hab. Chatham Islands.

a. Ad. sk. Chatham Islands. Colonial Museum, Wellington [P.]. (Type of species.)

10. Porphyrio smaragdinus.

Porphyrio smaragdinus, *Temm. Pl. Col.* v. pl. 421 (1826: Banda; Java); *Reichenb. Handb., Fulicariæ*, tab. cix. fig. 1102 (1852); *Finsch, Neu-Guinea*, p. 181 (1865).

Porphyrio pulverulentus (*nec T.*), *Gray, List Gralle Brit. Mus.* p. 121 (1844, pt.).

Porphyrio vitiensis, *Peale, U.S. Expl. Exp., Birds*, p. 221, pl. 62. fig. 2 (1848); *Hartl. Arch. f. Naturg.* 1852, p. 118; *Cass. U.S. Expl. Exp., Birds*, p. 309 (1858); *Gray, B. Trop. Isl. Pacific Ocean*, p. 53 (1859); *Finsch & Hartl. Faun. Centralpolyn.* p. 172, Taf. xii. fig. 3 (1867); *Gray, Hand-l. B.* iii. p. 65, no. 10484 (1871); *Finsch, P. Z. S.* 1871, p. 26; *E. L. Layard, Ibis*, 1876, p. 393 (Fiji); *id. Ibis*, 1880, p. 232 (Loyalty Isl.), p. 292 (Vate Isl.); *E. L. & L. C. Layard, Ibis*, 1882, p. 536 (New Caledonia), p. 544 (New Hebrides); *Ridgw. Proc. U.S. Nat. Mus.* iv. p. 331 (1882).

Porphyrio melanopterus, *Bp. C. R.* xliii. p. 599 (1856, *ex Temm. MSS.*); *Gray, Hand-l. B.* iii. p. 65, no. 10483 (1871); *Salvad. Ann. Mus. Genov.* viii. p. 384 (1876: Bouru), ix. p. 48 (1876: Bioto); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 395 (1877: Port Moresby); *Sharpe, Journ. Linn. Soc., Zool.* xiii. pp. 320, 505 (Port Moresby); *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 297 (1879: Laloke River); *Sharpe, Journ. Linn. Soc., Zool.* xiv. p. 688 (1879); *Salvad. Atti R. Accad. Torino*, xiv. p. 1166 (1879); *id. Ann. Mus. Genov.* xviii. p. 322 (1882); *H. O. Forbes, P. Z. S.* 1884, p. 426 (Timor Laut); *id. Nat. Wand. Malay. Arch.* p. 394 (1885: Bouru); *Grant, P. Z. S.* 1887, p. 333 (Fauro).

Porphyrio melanotus (*nec T.*), *Finsch, Neu-Guinea*, p. 181 (1865); *D'Albert. P. Z. S.* 1875, p. 30 (Hall Bay).

Porphyrio melanonotus, *D'Albert.* (*nec Temm.*) *Ann. Mus. Genov.* vii. p. 799 (1875); *Salvad. Atti R. Accad. Torino*, xiv. pp. 1166, 1169 (1879).

Porphyrio aneiteumensis, *Tristr. Ibis*, 1876, p. 265 (Aneiteum).

Porphyrio samoensis (*nec Peale*), *Finsch, P. Z. S.* 1877, p. 726 (Tongatabu); *id. t. c.* p. 775 (Eua, Friendly Islands); *id. Voy. H.M.S. 'Challenger,'* ii. p. 39 (1881); *Wiglesw. Abhandl. k. Zool. Mus. Dresden*, no. 6, p. 62 (1892, pt.).

Porphyrio indicus (*nec Horsf.*), *Lenz, J. f. O.* 1877, p. 379 (Ceram); *Rosenb. Malay. Arch.* 1879, p. 324 (Ceram), p. 373 (Aru Islands).

Porphyrio bellus (*nec Gould*), *E. L. Layard, Ibis*, 1878, p. 263 (New Caledonia).

Porphyrio samoensis aneiteumensis, *Wiglesw. Abhandl. k. Zool. Mus. Dresden*, no. 6, p. 62 (1892).

Adult. Similar to *P. calvus*, but with greyish-purple thighs like

the breast, and with a much more uniform blue chest, which, though differing from the colour of the breast, is not cobalt-blue as in *P. calvus*, but is of a more greyish hue; it is, in fact, a small race of the Australian *P. bellus*. Total length 15 inches, culmen with frontal shield 2·7, wing 9·3, tail 3·5, tarsus 3, middle toe and claw 3·8.

I cannot see any material differences between specimens from the localities recorded below, and they seem to belong to one species; but though the bird from Levuka cannot be separated from those from New Guinea, those from Ovalau and some other Fijian examples in the collection are somewhat browner on the back and show some approach to *P. samoensis*.

Hab. Northern Celebes. Throughout the Moluccas to New Guinea, the Solomon Islands, New Britain, New Hebrides, New Caledonia, the Fiji and Friendly Islands.

a, b. Ad. sk.	Menado, Celebes.	Tweeddale Coll.
c. Ad. sk.	Tondano, N. Celebes.	Wallace Coll.
d. ♀ ad. sk.	East Timor.	Wallace Coll.
e. Ad. sk.	S.E. New Guinea (*W. G. Lawes*).	Tweeddale Coll.
f. Ad. sk.	Port Moresby.	Kendal Broadbent [C.].
g. ♂ ad. sk.	Levuka, Fiji Islands, Aug. 28 (*E. L. Layard*).	Tweeddale Coll.
h, i. Ad. sk.	Viti Levu, Nov.	Dr. Macdonald [P.].
k. Ad. sk.	Fiji Islands.	E. L. Layard, Esq. [C.].
l. Ad. sk.	Fiji Islands.	Sir A. P. Gordon [P.].
m. ♀ ad. sk.	Tongatabu.	Voy. H.M.S. 'Challenger.'
n. ♀ ad. sk.	Vavao, Friendly Islands.	Brenchley Coll.
o. ♀ ad. sk.	Ovalau, Fiji Islands, Jan. 2 (*E. L. Layard*).	Tweeddale Coll.
p. ♀ ad. sk.	New Britain, Dec. (*Kleinschmidt*).	Sharpe Coll.
q. ♀ ad. sk.	Kabai, New Britain.	Rev. G. Brown [C.].

11. Porphyrio samoensis.

Porphyrio samoensis, *Peale, U.S. Expl. Exp., Birds*, p. 220, pl. 62. fig. 1 (1848); *Hartl. Arch. Nat.* 1852, p. 118; *Gray, Cat. B. Trop. Isl. Pacific Ocean*, p. 53 (1859); *id. Hand-l. B.* iii. p. 65, no. 10482 (1871); *Finsch, J. f. O.* 1872, pp. 33, 55 (Savaï, Upolu); *Wiglesw. Abhandl. k. Zool. Mus. Dresden*, no. 6, p. 62 (1892).

Porphyrio indicus (*nec Horsf.*), *Cass. U.S. Expl. Exp., Birds*, p. 308 (1858); *Finsch & Hartl. Faun. Centralpolyn.* p. 170, Taf. xii. fig. 2 (1867, pt.); *Whitmee, Ibis*, 1875, p. 446 (Samoa).

Adult. Similar to *P. smaragdinus*, but with the back brown; wings also brown: "bill and shield crimson; feet yellow, dashed with crimson" (*Peale*). Total length 13·5 inches, culmen and frontal shield 2·3, wing 8, tail 2·8, tarsus 2·9, middle toe and claw 3·7.

I have already drawn attention to the way in which this brown-

backed *Porphyrio* is approached by some of the browner-backed individuals of *P. smaragdinus* from the Fiji Islands.

Hab. Samoan Islands.

a, b. Ad. sk.	Samoa.	Rev. J. B. Stair [P.].
c. Ad. sk.	Samoa.	Gould Coll.
d. Ad. sk.	Samoa.	Rev. J. S. Whitmee [C.].
e. Ad. sk.	Samoa.	Purchased.
f. Ad. sk.	[Samoa.]	Sir E. Belcher [P.].

12. Porphyrio melanonotus.

Porphyrio melanotus, *Temm. Man. d'Orn.* ii. p. 701 (1820); *Gray, List Gralla Brit. Mus.* p. 121 (1844); *id. Gen. B.* iii. p. 598 (1845); *Gould, B. Austr.* vi. pl. 69 (1848); *Reichenb. Vög. Neuholl.* p. 241 (1850); *id. Handb., Fulicarie*, tab. cix. fig. 1100 (1852); *Pelz. Sitz. k. Akad. Wien*, xli. p. 319 (1860: Norfolk Isl.); *Gray, Ibis*, 1862, p. 240; *Gould, Handb. B. Austr.* ii. p. 321 (1865); *Schl. Mus. Pays-Bas*, Ralli, p. 57 (1865); *Gray, Hand-l. B.* iii. p. 64, no. 10478 (1871); *Buller, B. N. Zeal.* p. 185 (1873); *Ramsay, P. Z. S.* 1877, p. 343; *Casteln. & Rams. Proc. Linn. Soc. N. S. W.* i. p. 386 (1877: Gulf of Carpentaria); *Ramsay, op. cit.* ii. p. 199 (1878); *Finsch, Ibis*, 1882, p. 400; *Crowfoot, Ibis*, 1882, p. 270 (Norfolk Island); *Ramsay, Proc. Linn. Soc. N. S. W.* vii. p. 88 (1883: Lord Howe Isl.); *Finsch, Vög. der Südsee*, p. 44 (1884); *Ramsay, Tab. List Austr. B.* p. 21 (1888); *Etheridge, Lord Howe Isl.* p. 17 (1889); *North, Proc. Linn. Soc. N. S. W.* (2) iii. p. 1779 (1889: Cumberland District); *Cox & Hamilt. op. cit.* (4) p. 421 (1890: Mudgee District); *North, Nests & Eggs Austr. B.* p. 323 (1890).

Porphyrio melanonotus, *Newt. Zool. Rec.* 1868, p. 104; *Sharpe, Voy. Ereb. & Terror, App.* p. 29 (1875); *Meyer, Abbild. Vogel-Sk.* pl. 38 (1883); *Sharpe, Voy. H.M.S. 'Alert,' Birds*, p. 26 (1884: Booby Island); *Buller, B. New Zeal.* 2nd ed. ii. p. 79, pl. 31 (1888).

Porphyrio stanleyi, *Rowley, Orn. Misc.* i. p. 36, pl. ix. (1875).

Porphyrio cyanocephalus, *Elliot, Str. F.* vii. p. 13 (1878, *ex Vieill.*)*.

Adult. General colour above black, with a slight gloss of olive-brown, including the wing-coverts and scapulars; the lesser coverts purplish blue, the outer median coverts also slightly washed with blue; bastard-wing, primary-coverts, and quills black, slightly washed externally with blue; the first primary externally greyish blue; tail black; crown of head, sides of face, and chin dusky black; whole of hind neck, sides of neck, and under surface of body uniform purplish blue; lower abdomen and thighs black, with a scarcely perceptible wash of purple; under tail-coverts white; under wing-coverts like the breast; axillaries black, washed with purplish blue; the lower greater coverts and lower primary-coverts black, like the lining of the quills: "frontal plate, bill, legs, and

* Vieillot wrote *cyanophalus* (N. Dict. xxviii. p. 28, 1819), which Mr. Elliot alters (doubtless correctly) into *cyanocephalus*. The back is said to be "brun-noirâtre," which scarcely applies to *P. melanonotus*.

feet red ; iris bright orange-red" (*J. Gould*). Total length 16 inches, culmen and frontal shield 3, wing 10·5, tail 3·9, tarsus 3·7, middle toe and claw 4·5.

The specimen shot by Mr. Wallace near Dorey seems to belong to a small race, as the wing is only 9·8 inches and the middle toe and claw 3·7. Dr. Coppinger's specimen from Booby Island also has the wing 9·3 and the middle toe and claw 3·5 inches. Of a pair of birds procured in N.W. Australia by the late Mr. Bowyer Bower, the female has the wing 10·2 inches and the middle toe and claw 4·4, while the male (which is younger, and a somewhat browner bird) has the wing 10·6 inches.

Hab. Australia and Tasmania, Norfolk Island, Lord Howe's Island, New Zealand, New Guinea (Dorey).

a. Ad. st.	Tasmania.	Ronald Gunn, Esq. [P.].
b. Ad. st.	South Australia.	Sir G. Grey [P.].
c. Ad. sk.	Ashfield, New South Wales, May.	Hume Coll.
d, *e*, *f*. Ad. sk.	Queensland (*J. T. Cockerell*).	Salvin-Godman Coll.
g. Ad. sk.	Moreton Bay.	Gould Coll.
h. ♀ ad. sk.	Booby Isl., Torres Straits, Aug. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
i, *k*. ♂ ♀ ad. sk.	North-west Australia (*J. H. Bowyer Bower*).	Capt. Bowyer Bower [P.].
l. Ad. sk.	Dorey, New Guinea.	Wallace Coll.
m. Ad. st.	New Zealand.	Capt. Stokes [P.].
n. Ad. sk.	New Zealand.	Capt. Stokes [P.].
o, *p*. Ad. sk.	New Zealand.	Sir G. Grey [P.].
q–*t*. Ad. sk.	New Zealand.	New Zealand Co.
u. Ad. sk.	New Zealand.	Percy Earl, Esq. [P.].
v. Ad. sk.	Bay of Islands.	Old Coll.
w. ♀ ad. sk.	Dunedin, July.	Hume Coll.
x, *y*. ♂ ♀ ad. sk.	Otago, Nov.	Hume Coll.
z. Skeleton.	Australia.	Salvin-Godman Coll.
a'. Skeleton.	Australia.	Sharpe Coll.
b'. Skeleton.	Australia.	Purchased.

Subsp. *a*. Porphyrio pelewensis.

Porphyrio melanotus (*nec T.*), *Hartl. & Finsch, P. Z. S.* 1868, pp. 8, 117.

Porphyrio melanotus, var. pelewensis, *Hartl. & Finsch, P. Z. S.* 1872, p. 107.

Porphyrio pelewensis, *Hartl. & Finsch, P. Z. S.* 1872, p. 107 ; *Finsch, Journ. Mus. Godeffr.* Heft viii. p. 39 (1875).

Adult. Similar to *P. melanonotus*, but with the quills externally washed with greenish blue: "bill red; legs and iris yellow" (*Kubary*). Total length 15 inches, culmen with frontal shield 2·75, wing 8·9, tail 3·4, tarsus 3·3, middle toe and claw 4·1.

Hab. Pelew Islands.

a. Ad. sk.	Pelew Islands.	Mr. Cohen [C.].

13. Porphyrio pulverulentus.

Porphyrio pulverulentus, *Temm. Pl. Col.* v. pl. 405 (1826); *Gray, List Grallæ Brit. Mus.* p. 121 (1844, pt.); *Reichenb. Handb., Fulicariæ*, tab. cviii. figs. 1098–99 (1852); *Schl. Mus. Pays-Bas*, Ralli, p. 54 (1865); *Martens, J. f. O.* 1866, p. 29; *Wald. Tr. Z. S.* ix. p. 228 (1875); *Steere, List B. & Mamm. Philipp.* p. 25 (1890: Luzon).

Porphyrio poliocephalus (*nec Lath.*). *Gray, Gen. B.* iii. p. 598 (1845); *id. Hand-l. B.* iii. p. 65, no. 10468 (1871).

Adult. General colour above dark reddish brown washed with olive, and slightly washed with blue on the margins of the feathers of the mantle; wings light greyish blue, contrasting with the back; the lesser coverts clearer greyish blue; quills blackish, externally greyish blue; the inner secondaries brown like the back; tail-feathers dark olive-brown; head and neck all round, as well as the entire under surface of body, bluish grey, a little more dusky on the abdomen and thighs; under wing-coverts like the breast; the greater series and lower primary-coverts dusky blackish like the quill-lining. Total length 15 inches, culmen and frontal shield 3·75, wing 9·2, tail about 3·5, tarsus 3·4, middle toe and claw 4·2.

Young. Differs from the adult in being slightly duller in colour, in having the quills externally washed with olive, and the breast and abdomen obscured by hoary whitish edgings to the feathers.

Hab. Philippine Islands.

a. Ad. sk.	Manila, Luzon.	Hugh Cuming, Esq. [C.].
b. Juv. sk.	Manila.	Gould Coll.

51. NOTORNIS *.

	Type.
Notornis, *Owen, P. Z. S.* 1848, p. 2.....	N. mantelli.

Range. Confined to New Zealand and Norfolk Island.

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* Somewhere in the neighbourhood of *Notornis* should, I think, come the extinct *Aptornis*, although the latter has generally been placed in the vicinity of *Ocydromus*.

52. APTORNIS.

	Type.
Aptornis, *Owen, Trans. Z. S.* iii. p. 347 (1848).....	A. defossor.

1. Aptornis otidiformis.

Dinornis otidiformis, *Owen, t. c.* p. 247 (1844).

Aptornis otidiformis, *Owen, t. c.* p. 347 (1848); *id. Trans. Z. S.* vii. pp. 366–369, pl. 42. figs. 1–3, pl. 43. figs. 1–4; *Lydekker, Cat. Foss. B.* p. 147 (1891).

Hab. North Island, New Zealand.

2. Aptornis defossor.

Aptornis defossor, *Owen, Trans. Z. S.* vii. pp. 353–366, pls. 40, 41, 43, 44 (1871); *id. Trans. Z. S.* viii. pp. 119–126, pls. 14–16; *Haast, P. Z. S.* 1872, p. 24; *Lydekker, Cat. Foss. B.* p. 152 (1891).

Hab. South Island, New Zealand.

1. Notornis mantelli *.

Notornis mantelli, *Owen, Trans. Z. S.* iii. p. 377, pl. lvi. figs. 7–11 (1848); *Gould, Suppl. B. Austr.* pl. 76 (1851); *Gray, Ibis*, 1862, p. 239; *id. Hand-l. B.* iii. p. 65, no. 10491 (1871); *Owen, Trans. Z. S.* vii. pp. 369–371, pl. xlii. figs. 5, 6, pl. xliii. fig. 9 (1871); *Buller, B. N. Zeal.* pl. to p. 189 (1873); *Pelz. Ibis*, 1879, p. 376; *Owen, P. Z. S.* 1882, p. 97; *Buller, Trans. N. Z. Inst.* xiv. p. 238 (1882); *Parker, t. c.* p. 245; *A. Newt. P. Z. S.* 1882, p. 97; *A. B. Meyer, Ibis*, 1882, p. 607; *Parker, Trans. N. Z. Inst.* xviii. Art. x. p. 78 (1885); *Buller, B. N. Zeal.* 2nd ed. ii. pl. 32 (1888); *Parker, Tr. N. Z. Inst.* xxi. pp. 226–239 (1889); *Lydekker, Cat. Fossil B.* p. 157 (1891).

Adult. General colour above olive-green, with a certain amount of greyish-blue shading; wings more decidedly blue than the back; bastard-wing, primary-coverts, and quills black, externally purplish blue; upper tail-coverts like the back; tail-feathers green, blackish on the inner webs; head and neck all round, throat and under surface of body dark purplish blue, rather brighter where it skirts the green of the back; thighs somewhat blacker; under tail-coverts white; "frontal plate and bill bright red, yellowish towards the tip of both mandibles; tarsi and toes lighter red; claws horn-brown; iris red" (*W. L. Buller*). Total length about 20 inches, culmen 3·2, wing 9, tail 4·2, tarsus 3·7, middle toe and claw 3·7.

The second specimen, which has been usually supposed to be a female, seems to me to be a young bird. It is decidedly smaller than the adult, and is somewhat duller in colour.

Hab. New Zealand.

a. Ad. st.	Resolution Island.	Mantell Coll.
b. Ad. st.	Secretary Island.	Mantell Coll.

2. Notornis alba.

White Gallinule, *Callam, Voy. Botany B.* p. — (1783, *teste Gray*); *Phillips, Voy. Botany Bay*, p. 273, cum fig. (1789); *Lath. Gen. Syn. Suppl.* ii. p. 327 (1790); *Bennett, P. Z. S.* 1869, p. 471.

Fulica alba, *White, Journ. Voy. N. S. W.* p. 238, cum tab. (1790); *Salvin, P. Z. S.* 1877, p. 95.

Gallinula alba, *Lath. Ind. Orn.* i. p. 768 (1790).

Porphyrio albus, *Temm. Man. d'Orn.* ii. p. 701 (1820); *Gray, Ibis*, 1862, p. 240.

Porphyrio melanotus, var. alba, *Gray, Voy. Ereb. & Terror, Birds*, p. 19 (1844); *id. Gen. B.* iii. p. 598 (1845).

Notornis ? alba, *Pelz. Sitz. k. Akad. Wiss. Wien*, xli. p. 328 (1860); *Newt. Ibis*, 1866, p. 159, note; *Pelz. Ibis*, 1873, p. 44.

Notornis alba, *Salvin, Ibis*, 1873, p. 295, pl. x.; *Etheridge, Lord Howe Isl.* pp. 11–13 (1889).

Adult. Entirely white, with red bill and legs.

Hab. Norfolk Island and Lord Howe Island. Now extinct.

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* Dr. Meyer has pointed out that the type of *N. mantelli* was founded on osseous remains from the *North* Island, and he considers that the specimens procured in the *South* Island will be found to be different from the true *N. mantelli*. He has therefore proposed for it the name of *Notornis hochstetteri*. Cf. Meyer, Abbild. Vogel-Skel. pls. 34–37 (1883); id. Zeitschr. ges. Orn. ii. p. 45, pl. i. (1885). Mr. H. O. Forbes has also given the name of *Notornis parkeri* to an extinct species from the North Island.

53. FULICA*.

	Type.
Fulica, *Linn. Syst. Nat.* i. p. 257 (1766)	F. atra.
Phalaria, *Reichenb. Syst. Av.* p. xxi	F. gigantea.
Lysca, *Reichenb. Syst. Av.* p. xxi	F. ardesiaca.
Lupha, *Reichenb. Syst. Av.* p. xxi.....	F. cristata.
Lophophalaris, *Heine, in Heine & Reichen. Nomencl. Mus. Hein.* p. 317 (1890)	F. cristata.

Range. Nearly the whole of the Old and New Worlds.

Key to the Species.

a. Under tail-coverts entirely black.
  a'. Outer secondaries with white tips ..... *atra*, p. 210.
  b'. Outer secondaries without any white tips.
    a''. Upper portion of frontal shield corrugated, so as to form a mantled crest..... *cristata*, p. 215.
    b''. Frontal shield perfectly smooth, without any crest ..... *australis*, p. 217.
b. Under tail-coverts white; the vent and central coverts black; the lateral ones white, with the inner half of the feather black.
  c'. Secondaries whole-coloured, with no white tips to the outer ones.
    c''. Size smaller; length not exceeding 9·2 inches; toes dark olive or greenish in the dried skin.
      a'''. Shield ornamented with caruncles.... *cornuta*, p. 217.

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* I have not been able to identify the following species :—

FULICA NOVÆ ZEALANDIÆ.

Fulica novæ zealandiæ, *Colenso, Tasm. Journ. Nat. Sci.* 1845, p. 283; *Buller, Trans. N. Z. Inst.* x. p. 191 (1878); *id. B. New Zeal.* 2nd ed. ii. p. 140, note (1888).

Hab. New Zealand.

The following are extinct species :—

1. FULICA NEWTONI.

Fulica newtoni, *Milne-Edwards, Ann. Sci. Nat.* (5) *Zool.* viii. pp. 194–220, pls. 10–13; *id. Ois. Foss. Fr.* pls. 107, 108 (1868); *E. Newt. & Gadow, Tr. Z. S.* xiii. p. 292, pl. xxxv. figs. 1–11 (1893).
Palæolimnas newtoni, *Forbes, Ibis*, 1893, p. 544.

An extinct species from Mauritius. Mr. H. O. Forbes has discovered another Coot in the Chatham Islands, which if not the same as *F. newtoni* is very nearly allied to it.

2. FULICA MINOR.

Fulica minor, *Shufeldt, Auk*, viii. p. 367 (1891); *id. Journ. Acad. Nat. Sci. Philad.* xl. p. 412, pl. xvii. fig. 32 (1892).

From the 'Equus' beds of Oregon.

3. FULICA DESJARDINI.

Fulica desjardini, *Van Beneden, Bull. Acad. Belg.* xxxii. p. 218, pl. —. f. S.

4. FULICA PRIOR.

Fulica prior, *De Vis, Proc. Linn. Soc. N. S. W.* iii. pp 1283–1285, pls. 34, 35.

Hab. Queensland.

b'''. Shield plain or swollen, but without caruncles.
*a*⁴. First primary white along the outer web.
*a*⁵. Frontal shield rounded and defined by a well-marked anterior line; the rest of the bill yellow ..... *ardesiaca*, p. 217.
*b*⁵. Frontal shield pointed on the upper part, and continued into a red line on the culmen; top of frontal shield also sometimes yellow; the culmen and base of lower mandible always red ..... *armillata*, p. 218.
*b*⁴. First primary plain, without any white edge to the outer web ..... *leucopyga*, p. 220.
d''. Size much larger; length 10 inches; toes dark red like the tarsus ..... *gigantea*, p. 219.
d'. Outer secondaries with broad white tips.
e''. Bill dusky or dull yellow in skin, with a distinct dark or red subterminal mark upon the lower mandible ..... } *americana*, p. 221. } *caribæa*, p. 224.
f''. Bill entirely yellow, with no dark subterminal mark on the lower mandible.
c'''. Culmen and frontal shield 1·65 inches in length ..... *leucoptera*, p. 224.
d'''. Culmen and frontal shield 2·15 inches. *alai*, p. 225.

1. Fulica atra.

The Coot.

La Foulque ou Morelle, *Briss. Orn.* vi. p. 23, pl. ii. fig. 1 (1760); *Daubent. Pl. Enl.* ix. pl. 197 (fig. pess.).

La Grande Foulque ou la Macroule, *Briss. Orn.* vi. p. 28, pl. ii. fig. 2 (1760); *Buff. H. N. Ois.* vii. p. 220 (1781).

Fulica atra, *Linn. Syst. Nat.* i. p. 257 (1766); *Gm. Syst. Nat.* i. p. 702 (1788); *Vieill. N. Dict. d'Hist. Nat.* xii. p. 48 (1817); *Temm. Man. d'Orn.* ii. p. 706 (1820); *Horsf. Tr. Linn. Soc.* xii. p. 197 (1820); *Roux, Orn. Provenç.* pl. 336 (1825); *Werner, Atlas, Pinnatipedes*, pls. 1, 2 (c. 1827); *Brehm, Vög. Deutschl.* p. 709 (1831); *Ménétr. Cat. rais. Cauc.* p. 52 (1832); *Gould, B. Eur.* iv. pl. 338 (1837); *Naum. Vög. Deutschl.* ix. Taf. 241 (1838); *Crespon, Orn. Gard*, p. 458 (1840); *Keys. & Blas. Wirb. Eur.* p. 205 (1840); *Muhle, Orn. Griechenl.* p. 92 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 276 (1840); *Selys-Longch. Faune Belge*, p. 118 (1842); *Schl. Rev. Crit.* p. cii (1844); *Gray, List Gralle Brit. Mus.* p. 124 (1844); *Hodgs. Icon. ined. in Brit. Mus.* Grallæ, pl. 19 (no. 621); *id. in Gray's Zool. Misc.* p. 86 (1844); *Rüpp. Syst. Uebers.* p. 128 (1845); *Gray, Gen. B.* iii. p. 600 (1845); *id. Cat. Mamm. etc. Nepal pres. Hodgs.* p. 143 (1846); *Hewits. Eggs Br. B.* ii. p. 327, pl. 91. fig. 2 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 286 (1849); *Thomps. B. Irel.* ii. p. 332 (1849); *Macgill. Brit. B.* iv. p. 560 (1852); *Kjærb. Orn. Danm.* pl. 38. fig. 5, *Suppl.* pl. 18. fig. 5 (1852); *Schl. Vog. Nederl.* pl. 251 (1854); *Sundev. Svensk. Fogl.* pl. 45. fig. 5 (1856–72); *Heugl. Syst. Uebers.* p. 65 (1856); *Hartl. Orn. W.-Afr.* p. 245 (1857); *Leith Adams, P. Z. S.* 1858, p. 518, 1859, p. 180; *Jaub. et Barth.-Lapomm. Rich. Orn.* p. 493 (1859); *Salvin, Ibis*, 1859, p. 361; *Schrenck, Reis. Amur-L., Vög.* p. 406 (1859); *Tristr. Ibis*, 1860, p. 81 (Tuggurt); *Powys, t. c.* p. 348 (Epirus); *Linderm.*

Vög. Griechenl. p. 130 (1860); *Irby, Ibis*, 1861, p. 246 (Oudh); *Swinh. t. c.* p. 344 (Takow and Peking); *Schl. Dier. Nederl. Vog.* pl. 26. fig. 1 (1861); *Nordvi, Œfv. K. Vet.-Akad. Förh. Stockh.* xix. p. 382 (1862: Wardö); *Gould, B. Gt. Br.* iv. pl. 84 (1862); *A. Newton, in Baring-Gould's Iceland*, App. p. 411 (1863); *Gray, List Brit. B.* p. 181 (1863); *Radde, Reis. Sibir., Vög.* p. 312 (1863); *Jerd. B. Ind.* iii. p. 715 (1864); *Wright, Ibis*, 1864, p. 150 (Malta); *Sperling, t. c.* p. 288; *Filippi, Viagg. Pers.* p. 342 (1865); *Schl. Mus. Pays-Bas*, Ralli, p. 60 (1863); *Gigl. Ibis*, 1865, p. 62 (Pisa); *More, t. c.* p. 440; *Godman, Ibis*, 1866, p. 102 (Azores); *Taylor, Ibis*, 1867, p. 71 (Assouan); *Swinhoe, t. c.* p. 396 (Amoy); *Degl. et Gerbe, Orn. Eur.* ii. p. 268 (1867); *Loche, Exp. Sc. Algér., Ois.* ii. p. 331 (1867); *Sommerf. Zool.* xxv. pp. 699, 700 (1867: Varangerfiord); *Drake, Ibis*, 1867, p. 428 (Morocco); *Tristr. t. c.* p. 327 (Palestine); *Beavan, t. c.* p. 396 (Manbhum); *Smith, t. c.* p. 455 (Portugal); *Dyb. & Parvex, J. f. O.* 1868, p. 338 (Dauuria); *Borggr. Vogelf. Norddeutschl.* p. 107 (1869); *Doderl. Av. Sicil.* p. 204 (1869); *Droste, Vogelw. Borkum*, p. 138 (1869); *Godman, Azores*, p. 36 (1870); *Fritsch, Vög. Eur.* tab. 35. fig. 6 (1870); *Elwes & Buckley, Ibis*, 1870, p. 332; *Salvad. Faun. Ital., Uce.* p. 236 (1871); *Swinh. P. Z. S.* 1871, p. 415; *Gray, Hand-l. B.* iii. p. 67, no. 10513 (1871); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 1, p. 1219 (1871); *R. Gray, B. West. Scotl.* p. 338 (1871); *Saunders, Ibis*, 1871, p. 225 (Spain); *Harting, Handb. Brit. B.* p. 58 (1872); *Brooks, J. A. S. Beng.* xli. p. 8 (1872: Cashmere); *Stoliczka, t. c.* p. 254 (Kutch); *Feilden, Zool.* 1872, p. 3252 (Faeroes); *Taylor, Ibis*, 1872, p. 230 (Turkey); *Shelley, B. Egypt*, p. 278 (1872); *Severtz. Turkest. Jevotn.* p. 69 (1873); *Brooke, Ibis*, 1873, p. 336 (Sardinia); *Hayes Lloyd, t. c.* p. 418 (Kathiawar); *Hume & Henders. Lahore to Yark.* p. 293 (1873); *Hume, Nests & Eggs Ind. B.* p. 595 (1873); *id. Str. F.* i. p. 249 (1873: Sind); *Adam, t. c.* p. 497 (Sambhur); *Ball, Str. F.* ii. p. 432 (1874: Chota Nagpur); *Saxby, B. Shetl.* p. 225 (1874); *Irby, B. Gibr.* p. 145 (1875); *Lilford, Ibis*, 1875, p. 18 (Sicily); *Cordeaux, t. c.* p. 186 (Heligoland); *Danf. & Harvie-Brown, t. c.* p. 418 (Transylvania); *Fallon, Ois. Belg.* p. 187 (1875); *Le Mess. Str. F.* iii. p. 381 (1875: Sind); *Blyth, B. Burm.* p. 162 (1875: Arracan); *Butler, Str. F.* iv. pp. 20, 35 (1876: Guzerat, etc.); *Scully, t. c.* p. 191 (Yarkand); *Fairbank, t. c.* p. 263 (Ahmednuggur); *Blanf. East. Pers.* ii. p. 289 (1876: Baluchistan); *Wharton, Ibis*, 1876, p. 28 (Corsica); *Tacz. Bull. Soc. Zool. France*, i. p. 260 (1876); *Dresser, Ibis*, 1876, p. 413; *Butler, Str. F.* v. p. 233 (1877: Mount Aboo); *Wardlaw Ramsay, Ibis*, 1877, p. 472 (Toughoo); *Collett, Nyt Mag. Naturv.* xxiii. p. 174 (1877); *Tacz. Bull. Soc. Zool. France*, ii. p. 160 (1877); *David et Oust. Ois. Chine*, p. 489 (1877); *Craemers, Pr. N. H. Glasgow*, 1877, p. 305 (Ural); *Collin, ed. Kjærb. Orn. Dan.* p. 556 (1877); *Prjev. in Rowley's Orn. Misc.* iii. p. 94 (1878: Hoang-ho Valley); *Hume & Davison, Str. F.* vi. p. 465 (1878: Tenasserim); *Hume, Str. F.* vii. p. 67 (1878: Jodhpur); *Davidson & Wenden, t. c.* p. 90 (Deccan); *Ball, t. c.* p. 229; *Hume, t. c.* p. 489 (Calcutta); *id. Str. F.* viii. p. 113 (1879); *Scully, t. c.* p. 358 (Nepal); *Butler, Cat. B. Sind etc.* p. 66 (1879); *Dresser, B. Eur.* vii. p. 327, pl. 504. fig. 2 (1879); *Finsch, Verhandl. z.-b. Ver. Wien*, xxix. p. 255 (1879); *Vidal, Str. F.* ix. p. 86 (1880: S. Konkan); *Butler, Cat. B. S. Bomb. Pres.* p. 79 (1880); *Reid, Str. F.* x. p. 72 (1881: Lucknow); *Bidd. Ibis*, 1881, p. 97 (Gilgit); *Scully, t. c.* p. 590; *Blakist. & Pryer, B. Japan*, p. 124 (1882); *C. Swinh. Ibis*, 1882, p. 122 (Candahar,

Quetta); *Seebohm, t. c.* p. 226 (Astrahan); *id. t. c.* p. 383 (Archangel); *Slater, t. c.* p. 436 (Woochung); *Mela, Vertebr. Fenn.* 1882, pp. 191, 252; *Davidson, Str. F.* x. p. 322 (1882: Khandeish); *B. O. U. List Brit. B.* p. 151 (1883); *Booth, Rough Notes*, ii. (1884); *Oates, Handb. B. Brit. Burm.* ii. p. 352 (1883); *Seebohm, Ibis*, 1883, p. 27 (Caucasus); *Saunders, ed. Yarrell's Brit. B.* iii. p. 171 (1883); *Bogd. Consp. Av. Imp. Ross.* p. 59 (1884: distr. in Russia and Siberia); *Blakist. Amend. List B. Japan*, p. 13 (1884); *Seebohm, Hist. Brit. B.* ii. p. 564 (1884); *Tristr. Faun. & Flor. Palest.* p. 126 (1884); *Radde, Orn. Cauc.* pp. 40, 279 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 677 (1884); *Baird, Brewer, & Ridgway, Water-Birds N. Amer.* i. p. 398 (1884); *Murray, Vertebr. Faun. Sind*, p. 261 (1884); *Clarke, Ibis*, 1884, p. 148 (Sclavonia); *Seebohm, t. c.* p. 178 (Japan), p. 269 (Kiukiang); *Saunders, t. c.* p. 388 (Eastern Pyrenees); *Marshall, t. c.* p. 424 (Chamba); *Czato, Zeitschr. ges. Orn.* ii. p. 493 (1885: Hungary); *Büchner, J. f. O.* 1885, p. 208 (S. Petersburg); *Giglioli, Avif. Ital.* p. 358 (1886); *A. O. U. Check-l. N. Amer. B.* p. 144 (1886); *Deditius, J. f. O.* 1886, p. 538 (Kokonoor); *Stejn. Pr. U.S. Nat. Mus.* ix. p. 408 (1886: Japan, etc.); *Sharpe, Ibis*, 1886, p. 167 (Muscat); *id. t. c.* p. 489 (Fao); *Pleske, Uebers. Säug. u. Vög. Kola Halbinsel*, p. 317 (1886); *Salvad. Elench. Ucc. Ital.* p. 238 (1886); *Seebohm, Ibis*, 1887, p. 180 (Liukiu); *id. t. c.* p. 288 (ptery lography); *Stejn. Pr. U.S. Nat. Mus.* x. p. 415 (1887: Liukiu); *Olphe-Galliard, Faun. Orn. Eur. Occ.* fasc. xvi. p. 61 (1887); *Tate, Ibis*, 1887, p. 383 (Portugal); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 48 (1887: Tschinas); *Scully, J. A. S. Beng.* lvi. p. 88 (1887: Afghanistan); *Hume, Str. F.* xi. p. 327 (1888: Manipur); *Reid, Ibis*, 1888, p. 76 (Gran Canaria); *König, J. f. O.* 1888, p. 275 (Tunis), 1889, p. 194 (Munster); *Meyer, Abbild. Vogel-Skel.* pl. cxxx. (1889); *Giglioli, Avif. Ital.* 1st Resoc. p. 552 (1889); *Sharpe, Trans. Linn. Soc.* (2) v. pt. 3, p. 90 (1889); *St. John, Ibis*, 1889, p. 177 (Candahar); *Lilford, t. c.* p. 337 (Cyprus); *Reichen. Syst. Verz. Vög. Deutschl.* p. 43 (1889); *Seebohm, B. Japan Emp.* p. 360 (1890); *Oates, ed. Hume's Nests & Eggs. Ind. B.* iii. p. 386 (1890); *Brusina, Orn. Croat.* p. 84 (1890); *Meade-Waldo, Ibis*, 1890, pp. 429, 431 (Teneriffe, Hierro); *Frivaldsky, Aves Hung.* p. 155 (1891); *Reiser, Vogels. Landesm. Sarajevo*, p. 118 (1891); *Sharpe, Rep. Second Yarkand Miss., Aves*, p. 146 (1891: S. of Sanju Pass); *Hagerup, B. Greenl.* p. 53 (1891: chance visitor); *Saunders, Ibis*, 1891, p. 186 (Switzerland); *Styan, t. c.* pp. 329, 501 (China); *Gätke, Vogelw. Helgol.* p. 534 (1891); *Hartl. Abhandl. nat. Ver. Bremen*, xii. p. 332 (1892: Hainan); *Hartert, Ibis*, 1892, p. 513 (E. Prussia).

Fulica aterrima, *Linn. Syst. Nat.* i. p. 258 (1766); *Brehm, Vög. Deutschl.* p. 710 (1831).

Fulica fuliginosa, *Scop. Ann. I.* p. 104 (1769).

Fulica albiventris, *Scop. t. c.* p. 105 (1769).

La Foulque, *Buff. H. N. Ois.* viii. p. 211 (1781).

Common Coot, *Lath. Gen. Syn.* iii. pt. i. p. 275 (1785).

Greater Coot, *Lath. t. c.* p. 277 (1785); *Yarr. Brit. B.* iii. p. 36 (1843).

Fulica leuconyx, *Sparrm. Mus. Carls.* pl. 12 (1786).

Fulica æthiops, *Sparrm. t. c.* pl. 13 (1786).

Fulica atrata, *Pallas, Zoogr. Rosso-Asiat.* ii. p. 158 (1811).

Fulica pullata, *Pallas, t. c.* p. 159 (1811).

Fulica lugubris, *S. Müll. Verh. Nat. Ges. Land- en Volkenk.* p. 454

(1839–44); *Schl. Mus. Pays-Bas*, Ralli, p. 62 (1865); *Blasius, J. f. O.* 1883, p. 140 (Celebes); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlix. p. 416 (1889: Sumatra).

Fulica platyuros, *Brehm, Vögel Deutschl.* p. 711 (1831); *id. Vogelf.* p. 333 (1855).

Fulica atra japonica, *Temm. & Schl. Faun. Japon., Aves*, p. 120, pl. lxxvii. (1850).

Adult male. General colour above cindery grey with a slight olive shade on the back; wing-coverts also cindery grey, the outer feathers of the bastard-wing edged with white; quills ashy brown, with dusky tips, the first primary inclining to whity brown on the outer web; the outer secondaries whitish at the ends; the innermost secondaries washed with cindery grey like the back; tail black; head, hind neck, and throat black; remainder of under surface of body light slaty grey, with slight remains of ashy margins to the feathers of the chest and centre of the breast; under wing-coverts slaty grey, with a line of white feathers round the bend of the wings; under tail-coverts black: "bill very pale lavender, with a pinkish tinge; frontal shield ivory-white; tarsi and feet pearly grey, with a greenish tinge on the sides of the tarsus; garter orange-yellow; iris dark brown" (*R. B. S., MS.*). Total length 14·5 inches, culmen from base of shield 1·35, wing 8·6, tail 2·2, tarsus 1·3, middle toe and claw 3·85.

Adult female. Similar in plumage to the male, but slightly smaller. Total length 14·5 inches, culmen 1·4, wing 8·1, tail 2·5, tarsus 2·1, middle toe and claw 3·4.

Young. Much browner than the adult, the feathers of the head dusky blackish edged with white; lores, eyebrows, and sides of face white; under surface of body ashy whitish, browner on the flanks.

Hab. The greater part of Europe and Asia, not occurring further south than Egypt and Northern Africa, but ranging as far south as the Philippines in Asia.

Fulica lugubris from Java, Sumatra, and Celebes seems to be only a smaller form (like *Gallinula minor*) of the ordinary *F. atra*. The type in the Leyden Museum has the wing 7 inches.

a–d. Pull. sk.	Great Britain.	Gould Coll.
e. ♀ imm. sk.	Walberswick, Dec.	Seebohm Coll.
f, g, h. Pull. st.	Cambridgeshire.	Purchased.
i. ♀ ad. sk.	Hitchin, Herts, Dec. (*E. V. Seebohm*).	Seebohm Coll.
k. ♀ ad. sk.	Hampstead, Middlesex, Jan. 14.	Tweeddale Coll.
l. ♂ ad. sk.	Kingsbury, Middlesex, Nov. (*J. E. Harting*).	Tweeddale Coll.
m. ♂ ad. sk.	Staplehurst, Kent, Dec. 28.	W. Berry, Esq. [P.].
n. Ad. st.	Cookham, Berks.	Mr. W. Briggs.
o. ♂ ad.; *p, q, r.* ♀ ad. sk.	Avington, Hants, Nov., Feb., May.	Sir Edward Shelley [P.].
s, t. ♂ ♀ ad. st.	Avington.	Sir Edward Shelley [P.].
u. Ad. sk.	Devonshire.	Montagu Coll.
v. ♀ var. sk.	Holland.	F. Bond, Esq. [P.].

w,x. Ad. et juv. sk.	Tunis.	L. Fraser, Esq. [C.].
y. Ad. sk.	Egypt.	G. Turnbull, Esq. [P.].
z, a'. Ad. sk.	River Tigris (*Commander Jones*).	India Museum.
b'. Jr. sk.	Muscat.	Colonel Mills [P.].
c'. Ad. sk.	Fao, Persian Gulf.	W. D. Cumming, Esq. [P.].
d', e'. Ad. sk.	Yarkand (*Col. Chapman*).	Sharpe Coll.
f'. Nestling sk.	Yarkand, June 16 (*J. Scully*).	Hume Coll.
g'. Imm. sk.	Afghanistan (*Griffith*).	India Museum.
h'. Ad. sk.	Killa Maur, Northern Afghanistan, March 19 (*Dr. Aitchison*).	Afghan Delimitation Commission.
i', k'. ♀ ad. sk.	Kandahar, Feb.	Colonel Swinhoe [P.].
l', m'. ♂ ♀ juv. sk.	Kandahar, Feb. (*C. Swinhoe*).	Seebohm Coll.
n'. Ad. sk.	Thibet.	Earl Gifford [P.].
o', p'. Ad. sk.	Ladak (*Strachey*).	India Museum.
q', r'. ♂ ♀ ad. sk.	Gilgit, April 11.	ColonelBiddulph[C.].
s', t', u'. Ad. sk.	Kumaon (*Strachey*).	India Museum.
v'. Imm. sk.	Ghana, Sindh (*Dr. Gould*).	India Museum.
w'. ♀ ad. sk.	Larkhana, Sindh, Jan. 5 (*A. O. H.*).	Hume Coll.
x'. Ad. albino sk.	Kattiawar, Sept.(*A. Pullan*).	Hume Coll.
y', z'. ♀ ad. sk	Sambhur, Dec. (*R. M. Adam*).	Hume Coll.
a'', b''. ♀ ad. et imm. sk.	Delhi, Nov., Feb. (*C. T. Bingham*).	Hume Coll.
c'', d''. ♂ ad.; ♀ imm. sk.	Gurgaon Distr., Jan. (*A. O. H.*).	Hume Coll.
e'', f''. Ad. sk.	Sirsa, March (*A. O. H.*).	Hume Coll.
g'', h''. Ad. et imm. sk.	North-western India.	Piuwill Coll.
i'', k'', l''. Ad. et imm. sk.	Etawah, Nov. (*A. O. H.*).	Hume Coll.
m''. ♀ ad. sk.	Futtehgur, Nov. 16 (*A. Anderson*).	Hume Coll.
n''. ♂ ad. sk.	Bhatgaon, Nepal Valley, Nov. 11 (*J. Scully*).	Hume Coll.
o''–r''. Ad. et imm. sk.	Nepal.	Hodgson Coll.
s''. Ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
t''. Imm. sk.	Sikhim, Oct. (*L. Mandelli*).	Hume Coll.
u''. Ad. st.	Behar.	Hodgson Coll.
v''. Ad. sk.	Behar.	Hodgson Coll.
w''. Imm. sk.	Saugor (*Hooper*).	India Museum.
x''. Ad. sk.	Raipur.	Hume Coll.
y'', z''. ♂ ♀ ad.; *a*^{3}. ♂ jr. sk.	Sumbalpur, Jan.	Hume Coll.
b^3. ♀ ad. sk.	Nandurbar, Khandeish, Dec. 15 (*J. Davidson*).	Hume Coll.
c^3. ♀ imm. sk.	Tonghoo, Burma, Dec. 21 (*R. G. W. R.*).	Tweeddale Coll.
d^3. ♀ ad. sk.	Payagalay, Pegu, Jan. (*E. W. O.*).	Oates Coll.
e^3. ♀ ad. sk.	Thatone, Tenasserim, Dec. 16 (*W. Davison*).	Hume Coll.

f^3. Imm. sk.	Hankow, China, summer (*R. Swinhoe*).	Seebohm Coll.
g^3. ♂ ad. sk.	Amoy, Jan.	Seebohm Coll.
h^3. ♂ ad. sk.	Ningpo, Dec. 17.	Seebohm Coll.
i^3, k^3. Imm. sk.	Japan.	F. Ringer, Esq. [P.].
l^3. Ad. sk.	Yokohama, Japan, Nov. 15.	Seebohm Coll.
m^3. Ad. sk.	Manila, Philippines (*Maitland Heriot*).	Tweeddale Coll.
n^3. Skeleton.	Great Britain.	Old Coll.
o^3. Skeleton.	England.	Salvin-Godman Coll.
p^3. Skeleton.	England.	Purchased.
q^3. Skeleton.	S. Germany.	Dr. Günther.
r^3. Sternum.	England.	Yarrell Coll.
s^3, t^3. Sterna.	Europe.	Purchased.

2. Fulica cristata.

Foulque de Madagascar, *Daubent. Pl. Enl.* ix. pl. 797.

Le Grande Foulque à crête, *Buff. H. N. Ois.* viii. p. 222 (1781).

Crested Coot, *Lath. Gen. Syn.* iii. pt. i. p. 278, pl. xc. (1785).

Fulica cristata, *Gm. Syst. Nat.* i. p. 704 (1788); *Lath. Ind. Orn.* ii. p. 779 (1790); *Vieill. N. Dict. d'Hist. Nat.* xii. p. 47 (1817); *id. Gal. Ois.* ii. pl. 269 (1825); *Schl. Rev. Crit.* p. cii (1844); *Des Murs in Lefebvre, Voy. Abyss.* p. 166 (1845); *Rüpp. Syst. Uebers.* p. 128 (1845); *Reichenb. Handb., Fulic.* p. 21, tab. clxxxvii. fig. 1090 (1854); *Bolle, J. f. O.* 1855, p. 314; *Bp. Naum.* 1856, pl. 2; *Heugl. Syst. Uebers.* p. 65 (1856); *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 494 (1859); *Salvin, Ibis*, 1859, p. 361; *Tristr. Ibis*, 1860, pp. 81, 157, 158; *Hartl. J. f. O.* 1860, pp. 7, 173; *Brehm, t. c.* p. 396; *Hartl. Faun. Madag.* p. 81 (1861); *Homeyer, J. f. O.* 1862, p. 430 (Balearic Isles); *Gurney, Ibis*, 1862, p. 153 (Natal); *E. Newt. Ibis*, 1863, p. 459 (Madagascar); *Wright, Ibis*, 1864, p. 150 (Malta); *Salvad. J. f. O.* 1865, p. 282; *Gigl. Ibis*, 1865, p. 62; *Sehl. Mus. P.-B.*, Ralli, p. 59 (1865); *Bree, B. Eur.* iv. pl. to p. 83 (1866); *Layard, B. S. Afr.* p. 343 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 270 (1867); *Gurney, Ibis*, 1868, pp. 256, 261 (Natal), p. 470 (Transvaal); *Smith, t. c.* p. 455 (Portugal); *Chapm. Trav. S. Afr.* ii. p. 421 (1868); *Schl. & Poll. Faune Madag., Ois.* p. 160 (1868); *Doderl. Avif. Sicil.* p. 206 (1869); *Drake, Ibis*, 1869, p. 153 (Morocco); *Saunders, t. c.* p. 183 (S. Spain); *Blanf. Geol. & Zool. Abyss.* p. 65 (1870: Lake Ashangi); *Tacz. J. f. O.* 1870, p. 54 (Prov. Constantine); *Fritsch, Vög. Eur.* Taf. 35. fig. 7 (1870); *Gray, Hand-l. B.* iii. p. 68, no. 10521 (1871); *Heugl. Orn. N.O.-Afr.* ii. pt. i. p. 1222 (1871); *Salvad. Faun. Ital. Ucc.* p. 237 (1871); *Saunders, Ibis*, 1871. p. 225; *Gurney in Anderss. B. Dam. Ld.* p. 327 (1872); *Shelley, B. Egypt*, p. 278 (1872); *Brooke, Ibis*, 1873, p. 336 (Sardinia); *Ayres, Ibis*, 1874, p. 105 (Transvaal); *Buckley, t. c.* p. 389; *Irby, B. Gibr.* p. 145 (1875); *Barratt, Ibis*, 1876, p. 213 (Mooi River; Pretoria); *Hartl. Vög. Madag.* p. 352 (1877); *Brehm, J. f. O.* 1879, p. 442 (Spain); *Irby, Ibis*, 1874, p. 345 (Gibraltar); *Dresser, B. Eur.* vii. p. 323, pl. 504. fig. 1 (1879); *Bocage, Orn. Angola*, p. 486 (1881); *Sharpe in Oates' Matabele Land*, App. p. 324 (1881); *Milne-Edwards & Grandid. N. H. Madag., Ois.* p. 586 (1882); *Holub & Pelz. Beitr. Orn. Südafr.* p. 295 (1882); *Butler, Feilden, & Reid, Zool.* 1882, p. 426 (Newcastle); *Sharpe, ed. Layard's B. S. Afr.* p. 621 (1884); *Fischer, Zeitschr. ges. Orn.* i. p. 386 (1884: Naiwascha Lake); *Salvad. Ann. Mus. Genov.* (2) i. pp. 225, 274 (Shoa); *Fischer,*

J. f. O. 1885, p. 117; *Gigl. Avif. Ital.* p. 359 (1886); *Salvad. Elench. Ucc. Ital.* p. 239 (1886); *Reichen. J. f. O.* 1887, p. 48 (Kagehi); *Salvad. Ann. Mus. Genov.* (2) iv. p. 313 (1888); *König, J. f. O.* 1888, p. 276; *Gigl. Avif. Ital.* 1st Resoc. p. 554 (1889); *Souza, Jorn. Lisb.* (2) ii. p. 118 (1889: Katumbella).

Fulica mitrata, *Licht. Verz. Vög. Kaffernl.* p. 19 (1842); *id. Nomencl. Av.* p. 97 (1854); *Brehm, Vogelf.* p. 323 (1855).

Lupha cristata, *Reichenb. Syst. Nat.* p. 22 (1852); *Loche, Expl. Sci. Algér., Ois.* ii. p. 349 (1867); *Ridgw. Proc. U.S. Nat. Mus.* iv. p. 331 (1882).

Fulica atra, pt. (*nec L.*), *Cara, Orn. Sard.* p. 163 (1842).

Lophophalaris cristata, *Heine in Heine & Reichen. Nomencl.* p. 317 (1890).

Adult. Similar to *F. atra*, and having black under tail-coverts like that species, but differing in the entire absence of the white tips to the inner secondaries, and by the knob-like excrescences which are found at the top of the frontal shield: "bill whitish, tinged with bluish above, and the base clear red; the frontal caruncles dark red; feet greenish brown; iris blackish" (*Loche*). Total length 16 inches, culmen from base of shield 1·4, wing 8·6, tail 2·3, tarsus 2·7, middle toe and claw 4·2.

According to Salvadori the *females* are a little smaller than the males, and Loche says that the frontal caruncles are a little less developed.

Young. Ashy brown above, feathers of the head and neck having hoary white edges; lores, cheek, and entire throat white; inclining to hoary grey on the chest and fore neck; rest of the under surface ashy, with hoary edges to the feathers: "bill dusky ashy, whitish at tip; tarsi and feet ash-colour; iris light ashy brown" (*T. Ayres*).

Hab. Africa generally, extending into Northern Africa and South-western Europe.

a. Ad. sk.	Mogador.	Howard Saunders, Esq. [P.].
b. ♀ ad. sk.	Lake Ashanghi, Abyssinia (8000 feet), May 1.	W. T. Blanford, Esq. [C.].
c. ♂ ad.; *d, e.* ♀ ad. sk.	Angollallah, Shoa, May to July (*Sir W. Harris*).	India Museum.
f. ♂ ad. sk.	Ondonga, Ovampo Land, Dec. 11 (*C. J. Andersson*).	Shelley Coll.
g. Ad. sk.	Natal.	Tweeddale Coll.
h, i. ♂ ♀ ad. sk.	Durban, Natal (*Gordge*).	Shelley Coll.
k. ♂ juv. sk.	Rhinoster River, May 2 (*T. Ayres*).	Gurney Coll.
l. Ad. sk.	Transvaal (*T. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
m. Ad. sk.	Potchefstroom.	F. A. Barratt, Esq. [P.].
n. Ad. sk.	Cape Colony.	Dr. Krauss [C.].
o. Ad. sk.	Cape Colony, Dec. 7.	Gould Coll.
p, q. Ad. st.	Cape Colony.	J. Gould, Esq.
r. Ad. sk.	South Africa.	Gould Coll.
s. Imm. sk.	Madagascar (*W. Deans Cowan*).	Tweeddale Coll

3. Fulica australis.

Fulica australis, *Gould, P. Z. S.* 1845, p. 2 (W. Australia); *id. B. Austr.* vi. pl. 74 (1846); *id. Handb. B. Austr.* ii. p. 329 (1865); *Gray, Hand-l. B.* iii. p. 67, no. 10514 (1871); *Legge, Proc. Roy. Soc. Tasm.* 1874, p. 36; *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 193 (1877: N. S. Wales; breeding); *Casteln. & Rams. t. c.* p. 386 (Norman River); *Rams. op. cit.* ii. p. 199 (1878); *id. op. cit.* (2) ii. p. 172 (1887: N.W. Australia); *id. Tab. List Austr. B.* p. 21 (1888); *North, Nests & Eggs Austr. B.* p. 326 (1890: Melbourne; breeding).
Fulica tasmanica, *Grant, Tasm. Journ. Nat. Sci.* ii. p. 310 (1845).
Fulica atra, pt., *Schl. Mus. Pays-Bas*, Ralli, p. 60 (1865); *Seeb. Hist. Br. B.* ii. p. 564 (1884).

Adult. Similar to *F. atra*, and having black under tail-coverts, as well as a line of white feathers round the bend of the wing, but having scarcely any indication of white tips to the outer secondaries: "bill light bluish grey; legs and feet french grey; iris bright red" (*J. Gould*). Total length 14 inches, culmen from base of shield 1·2, wing 7·2, tail 1·8, tarsus 2·1, middle toe and claw 3·4.

Hab. The whole of Australia and Tasmania.

a.	Ad. sk.	Australia.	Sir George Grey [P.].
b.	Juv. sk.	Australia.	Sir D. Cooper [P.].
c.	Ad. sk.	Australia.	Mr. Wills [P.].
d, e.	Ad. sk.	Queensland.	Salvin-Godman Coll.
f.	♀ ad. sk.	VictoriaRiver,N.W.Australia, March.	J. R. Elsey, Esq. [P.].
g.	Ad. sk.	North-west Australia (*T. H. Bowyer Bower*).	Capt. Bowyer Bower [P.].

4. Fulica cornuta.

Fulica cornuta, *Bp. C. R.* xxxviii. p. 925 (1853); *Hartl. J. f. O.* 1853, Extrah. p. 82; *Scl. & Salv. P. Z. S.* 1868, p. 463 (Potosi, Bolivia); *Gray Hand-l. B.* iii. p. 68, no. 10522 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *iid. P. Z. S.* 1879, p. 641.
Lycornis cornuta, *Bp. Ann. Sci. Nat.* (4) *Zool.* i. p. 46 (1854); *id. C. R.* xliii. p. 600 (1856).

Adult. Ashy black, the head and neck duller; vent black, mixed with white; frontal shield ornamented with a large caruncle. Total length 19 inches, tarsus 3·1. (*Sclater & Salvin, l. c.*)

Hab. Potosi, Bolivia.

5. Fulica ardesiaca.

Fulica ardesiaca, *Tschudi, Arch. f. Naturg.* 1831, p. 389; *Gray, Gen. B.* iii. p. 600 (1845); *Tschudi, Faun. Peruan., Aves*, p. 303 (1845–46); *Scl. P. Z. S.* 1860, p. 82 (Riobamba); *id. & Salv. P. Z. S.* 1868, pp. 178, 464; *iid. Exot. Orn.* p. 113, pl. lvii. (1868); *iid. P. Z. S.* 1869, p. 156 (Lake of Tungasuka); *Gray, Hand-l. B.* iii. p. 68, no. 10524 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Taez. P. Z. S.* 1874, p. 559; *Scl. & Salv. P. Z. S.* 1879, p. 641 (Bolivian Andes); *Taez. Orn. Pérou*, iii. p. 328 (1886: Junin; Chorillos; Lake Titicaca); *Scl. P. Z. S.* 1886, p. 402

(Huasco); *Allen, Bull. Amer. Mus. Nat. Hist.* ii. p. 107 (Lake Titicaca); *Heine & Reichen. Nomencl. Mus. Hein.* p. 317 (1890: Valdivia).

Fulica chilensis, *Des Murs in Gay's Faun. Chil.* viii. p. 474, Atlas, tab. xi.; *Hartl. J. f. O.* 1853, Extrah. p. 81; *Schl. Mus. Pays-Bas*, Ralli, p. 63 (1865, pt.); *Scl. & Salv. P. Z. S.* 1868, p. 176 (Lake of Tambo).

Lysca ardesiaca, *Reichenb. Syst. Nat.* p. xxi (1862).

Adult male. General colour above and below slaty grey, with a slight wash of olive on the upper parts; quills and tail blackish; first primary distinctly edged with white; head and neck all round velvety black; vent and under tail-coverts black, the lateral under tail-coverts white or white with black centres. Total length 16 inches, culmen and frontal shield 2·3, wing 9·1, tail 2·4, tarsus 2·9, middle toe and claw 4.

As with the allied species, the notes respecting the soft parts of this species differ considerably. I give them as recorded by the original observers; nor have I been able to determine whether these differences are due to age or sex.

"Bill reddish yellow, the tip horny; tarsi black; claws blackish brown; iris yellowish brown; shield pale yellow" (*Tschudi*).

"Iris red; frontal shield delicate orange, blending into lemon at the sides and base; bill flesh-colour, the tip bluish; legs and feet delicate slate-colour" (*Fraser*).

"Bill lavender-colour; iris bright red; shield white; legs and toes lavender" (*Whitely*).

"Bill white, marked with orange at the base; shield chocolate; legs and toes light green" (*Whitely*).

Young. Whiter below; the bill dark greyish horn-colour, lighter at the tip and on the terminal half of the edges; iris dark brown, slightly reddish; feet greyish horn-colour, darker on the joints, greenish below the leg-feathers; claws dark horny grey (*Taczanowski*).

Hab. Andes of South America from Ecuador to Peru, Bolivia, and Tarapacá.

a, b. Ad. sk.	Cotta, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
c. ♀ ad. sk.	Laguna de Tambo, Peru Nov. (*H. Whitely*).	Salvin-Godman Coll.
d. Ad. sk.	Laguna de Tangasuka, Peru, July 2 (*H. Whitely*).	Salvin-Godman Coll.
e. ♂ ad. st.	Laguna de Tangasuka, July 2.	H. Whitely [C.].
f, g. ♂ ad. sk.	Sacoya, Tarapacá, Jan., March.	Berkeley James Coll. [P.].
h. Ad. st.	South America.	No history.

6. Fulica armillata.

Focha de ligas roxas, *Azara, Apunt.* iii. p. 474, no. 448 (1802).

Fulica armillata, *Vieill. N. Dict.* xii. p. 47 (1817); *Gray, Gen B.* iii. p. 600 (1845); *Hartl. Ind. Azara*, p. 28 (1847); *id. J. f. O.* 1853, Extrah. p. 82; *Burm. Th. Bras.* iii. p. 390 (1855); *id. Reis.*

La-Plata St. ii. p. 505 (1861 : Mendoza ; R. Parana) ; *Scl. P. Z. S.* 1867, pp. 334, 339 ; *id. & Salv. P. Z. S.* 1868, pp. 145, 465 ; *iid. Exot. Orn.* p. 115, pl. lviii. (1868) ; *Pelz. Orn. Bras.* p. 318 (1871 : Irisanga) ; *Gray, Hand-l. B.* iii. p. 68, no. 10517 (1871) ; *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873) ; *Durnf. Ibis*, 1877, p. 195 (N. of Buenos Ayres) ; *id. Ibis*, 1878, pp. 66, 401 (C. Patagonia) ; *Barrows, Auk*, i. p. 277 (1884 : Lower Uruguay) ; *Withington, Ibis*, 1888, p. 471 (Lomas de Zamora) ; *Scl. & Hudson, Argent. Orn.* ii. p. 157 (1889) ; *Holland, Ibis*, 1890, p. 427 (Buenos Ayres) ; *Oust. Miss. Sci. Cap Horn, Oiseaux*, p. 136 (1891) ; *Holland, Ibis*, 1892, p. 209 (Estancia, Espartilla : breeding).

Fulica chloropoides, *King, Zool. Journ.* iv. p. 95 (1828) ; *Gray, Gen. B.* iii. p. 600 (1845).

Fulica frontata, *Gray, List Grallæ Brit. Mus.* p. 124 (1844).

Lysca armillata, *Reichenb. Syst. Nat., Fulic.* p. xxi (1852).

Fulica chilensis (*nec DesMurs*), *Landb. Arch. f. Naturg.* xxviii. 1862, p. 215 ; *Schl. Mus. Pays-Bas*, Ralli, p. 63 (1865, pt.).

Fulica leucopyga (*nec Licht.*), *Sharpe, P. Z. S.* 1880, p. 14 (Talcahuano).

Adult. Similar to *F. ardesiaca*, but with the frontal shield more pointed on the crest, and having a more distinct mark of red along the base of the culmen. Total length 18 inches, culmen with frontal shield 2·25, wing 8·5, tail 2·15, tarsus 2·6, middle toe and claw 4.

The descriptions of the colour of the soft parts vary greatly ; and I give some of the principal notes herewith. It must be noticed that Landbeck is the only observer who has noted the red on the tarsus as figured by Sclater and Salvin in the 'Exotic Ornithology.'

"Bill yellow, with a dark red patch on the culmen ; legs olive-green ; claws brown ; iris yellow" (*Coppinger*).

"Bill and shield primrose-yellow, the latter large and oval in shape ; base of upper mandible and a small portion of shield bright blood-red ; legs olivaceous, with a pale red garter above the knee" (*Durnford*).

Hab. Southern Brazil and Pampas of Mendoza to Bolivia, south from Paraguay and the Argentine Republic throughout Chili and Patagonia.

a. Ad. sk.	South America.	Old Coll.
b. Ad. sk.	Lake Titicaca, Peru.	Old Coll.
c. Ad. st.	Chili.	T. Bridges [C.].
d. ♀ ad. st.	Chili.	E. C. Reed, Esq. [C.].
e. Ad. st.	Valparaiso.	Sir W. Burnett and Admiral Fitzroy. (Type of *F. frontata*.)
f. Ad. sk.	Chili (*Dr. Weisshaupt*).	Salvin-Godman Coll.
g, h. Ad. sk.	Tarapacá, Dec.	Berkeley James Coll.
i. ♂ ad. sk.	Talcahuano, Chili, Sept. 18, (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'

7. Fulica gigantea.

Fulica gigantea, *Eyd. & Souleyet, Voy. 'Bonite,'* p. 102, tab. 8 (1841 : Peru) ; *Gray, Gen. B.* iii. p. 600 (1845) ; *Tsch. & Cab. Faun. Peruan., Aves*, p. 302 (1844–46 : Lake of Ascacocha) ; *Hartl. J. f. O.* 1853, Extrah. p. 80 ; *Scl. & Salv. P. Z. S.* 1868, p. 463 ; *iid. Exot.*

Orn. p. 120 (1868); *Gray, Hand-l. B.* iii. p. 68, no. 10523 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Tacz. P. Z. S.* 1874, p. 559; *id. Orn. Pérou*, iii. p. 329 (1886: Lake Junin); *Scl. P. Z. S.* 1886, p. 402 (Cueva Nigra, Tarapacá).
Phalaria gigas, *Reichenb. Syst. Nat.* p. xxi (1852).
Fulica maxima, *Brehm, Vogelf.* p. 323 (1855).

Adult female. General colour above dark slaty grey; wing-coverts like the back: quills and tail black, first primary with a white edging, which is often absent; head and neck all round velvety black, shading off on the neck into slaty grey like the rest of the under surface: under tail-coverts black, the lateral ones parti-coloured, white along the outer webs. Total length 20 inches, culmen and frontal shield 2·6, wing 10·2, tail 2·4, tarsus 3·7, middle toe and claw 5·5.

The soft parts as given by Tschudi are as follows:—"Frontal shield and the upper part of the culmen, as far as the anterior border of the nostrils, clear yellow; end of bill horn-colour; shield purplish red; feet dark red: claws blackish grey" (*Tschudi*). Jelski's notes are as follows:—"Bill red on the upper part of the mandible as far as the anterior edge of the nostrils; the frontal shield, which is much swollen, yellow; the end of both mandibles gradually passing from yellow to a whitish horn; claws horn-brown; iris hazel-brown." Finally, Mr. Berkeley James writes:—"Feet dark brickdust-red; bill reddish brown, with the ridge and point white and a spot on each side yellow; iris reddish brown."

The amount of white on the under tail-coverts varies greatly, some of the lateral ones being white with black centres, while in one of Mr. James's examples from Tarapacá they are almost entirely black.

Hab. Peru and Bolivia to the province of Tarapacá in Chili.

a. Ad. sk.	Peru (*H. Whitely*).	Salvin-Godman Coll.
b. ♀ ad. sk.	Junin, Peru.	Dr. Taczanowski [P.].
c. ♂ ad.; *d.* Ad. sk.	Sacaya, Tarapacá, March.	Berkeley James Coll.

8. Fulica leucopyga.

Fulica leucopyga (*nec Wagler*), *Gray, Gen. B.* iii. p. 600 (1845); *Licht. Nomencl. Av. Berol.* p. 97 (1854); *Burm. Th. Bras.* iii. p. 390 (1856, note: Montevideo); *Schl. Mus. Pays-Bas*, Ralli, p. 64 (1865: Santiago); *Scl. & Salv. P. Z. S.* 1868, p. 467; *üd. Exot. Orn.* p. 117, pl. lix. (1868); *Gray, Hand-l. B.* iii. p. 68, no. 10516 (1871); *Pelz. Orn. Bras.* p. 459 (1871); *Scl. & Salv. Nomencl. Av.* p. 140 (1873); *Durnf. Ibis*, 1877, p. 42 (Chupat), 1878, p. 66 (Buenos Ayres), p. 402 (Central Patagonia); *Scl. & Hudson, Argent. Orn.* ii. p. 157 (1889).
Fulica leucopygia, *Hartl. J. f. O.* 1853, Extrah. p. 84 (*ex Licht. MSS. in Mus. Berol.*); *Withington, Ibis*, 1888, p. 471 (Lomas de Zamora); *Oust. Miss. Sci. Cap Horn, Ois.* p. 135 (1891).
Fulica chloropoides (*nec King*), *Abbott, Ibis*, 1861, p. 157 (Falkland Islands).
Fulica rufifrons, *Philippi & Landb. Arch. f. Nat.* xxviii. p. 223 (1862).

Adult. Similar to *F. armillata*, but distinguished by the absence of a white edging to the first primary. Total length 14 inches, culmen with frontal shield 2·2, wing 6·5, tail 2·4, tarsus 2·2, middle toe and claw 3·4.

Hab. Southern Brazil and Argentina to Chili, Patagonia, and the Falkland Islands.

a. ♀ ad. st.	Falkland Islands.	Antarctic Expedition.
b. ♀ ad. sk.	Central Chili (*E. C. Reed*).	Salvin-Godman Coll.
c, *d.* Ad. sk.	Central Chili.	Berkeley James Coll.
e. Ad. st.	Valparaiso.	Sir W. Burnett and Admiral Fitzroy [P.].
f. Ad. sk.	Jacal, Argentine Republic.	Salvin-Godman Coll.
g. Ad. sk.	Buenos Ayres (*W. H. Hudson*).	Salvin-Godman Coll.
h, *i.* Juv.; *k.* Pull. sk.	Chupat, Patagonia, March.	H. Durnford, Esq. [C.].

9. Fulica americana.

Cinereous Coot, *Lath. Gen. Syn.* iii. pt. i. p. 279 (1785); *Nuttall, Man. Orn.* ii. p. 229 (1834).

Fulica americana, *Gm. Syst. Nat.* i. p. 704 (1788); *Wilson, Amer. Orn.* ix. p. 1, pl. lxxiii. fig. 1 (1814); *Vieill. N. Dict. d'Hist. Nat.* xii. p. 50 (1817); *Sabine in Frankl. Journ.*, App. p. 690 (1823); *Swains. & Rich. Faun. Bor.-Amer., Birds*, p. 404 (1831); *Jard. ed. Wilson's Amer. Orn.* iii. p. 183 (1832); *Audub. B. Amer.* pl. 239; *id. Orn. Biogr.* iii. p. 291 (1835), v. p. 568 (1839); *id. B. Amer.* 8vo, v. p. 138, pl. 305; *Gray, Gen. B.* iii. p. 600 (1845); *Gosse, B. Jamaica*, p. 384 (1847); *Hartl. J. f. O.* 1853, Extrah. p. 87, 1855, p. 99; *Gundl. J. f. O.* 1856, p. 430 (Cuba); *Scl. P. Z. S.* 1867, p. 206 (Jalapa); *Baird, B. N. Amer.* p. 751 (1858); *Bryant, Proc. Bost. Soc. Nat. Hist.* vii. p. 122 (1859: Bahamas); *Jones, Nat. Bermudas*, p. 46 (1859); *A. & E. Newt. Ibis*, 1859, p. 260 (S. Croix); *Moore, P. Z. S.* 1859, p. 64 (Chilomo); *Scl. P. Z. S.* 1859, p. 369; *Scl. & Salv. Ibis*, 1859, p. 230 (Dueñas), 1860, p. 45; *Reinh. Ibis*, 1861, p. 12 (Greenland); *Scl. P. Z. S.* 1861, p. 81 (Jamaica); *Blakist. Ibis*, 1862, p. 9 (Saskatchewan), 1863, p. 135; *March, Proc. Philad. Acad.* 1864, p. 69 (Jamaica); *Scl. P. Z. S.* 1864, p. 179 (City of Mexico); *Schl. Mus. Pays-Bas*, Ralli, p. 63 (1865); *McIlwraith, Proc. Essex Inst.* v. p. 93 (1866: Canada); *Dresser, Ibis*, 1866, p. 40 (S. Texas); *Léot. Ois. Trinid.* p. 504 (1866); *Lawr. Ann. Lyc. N. Y.* viii. p. 100 (1866: Sombrero); *Baird, Ibis*, 1867, p. 283; *Scl. & Salv. P. Z. S.* 1868, p. 468; *Lawr. Ann. Lyc. N. Y.* ix. p. 143 (1868: Costa Rica); *Sundev. Œfv. K. Vet.-Akad. Förh. Stockh.* 1869, p. 387 (S. Bartholomew); *id. t. c.* p. 601 (Porto Rico); *Dall & Bann. Trans. Chicago Acad.* i. p. 293 (1869: Fort Yukon); *Salv. P. Z. S.* 1870, p. 219 (Veragua); *Gray, Hand-l. B.* iii. p. 67, no. 10515 (1871); *Harting, P. Z. S.* 1871, p. 117 (Disco); *Coues, Key N. Am. B.* p. 275 (1872); *Allen, Bull. Mus. C. Z.* iii. p. 183 (1873); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Coues, B. N.-West*, p. 541 (1874); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 312 (1874: Colima; Mazatlan); *Henshaw, Rep. Zool. Exp. 100th Merid.* p. 469 (1875); *Gundl. Orn. Cuba*, p. 301 (1876); *Lawr. Bull. U. S. Nat. Mus.* iv. p. 50 (1876: S.W. Mexico); *Ridgw. Rep. Surv. 140th Parallel*, p. 614

(1877); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 62 (1878: Texas, breeding); *Coues, t. c.* p. 647 (49th parallel); *Merrill, Proc. U. S. Nat. Mus.* i. p. 165 (1878); *Belding, t. c.* p. 444 (Stockton); *Maynard, B. East. N. Amer.* p. 434 (1879); *Cory, B. Bahamas*, p. 178 (1880); *Lister, Ibis*, 1880, pp. 39, 44 (S. Vincent); *A. & E. Newton, Handb. Jamaica*, p. 115 (1881); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 47 (1881); *id. Proc. U.S. Nat. Mus.* iii. p. 202 (1881); *Coues, Check-l. N. Amer. B.* p. 110 (1882); *Samuels, North. & East. Birds*, p. 476 (1883); *Belding, Proc. U.S. Nat. Mus.* v. p. 545 (1883: Lower California); *Coues, Key N. Amer. B.* 2nd ed. p. 676 (1884); *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* i. p. 393 (1884); *Drew, Auk*, ii. p. 18 (1885: Colorado); *Goss, t. c.* p. 112 (Kansas); *Agersb. t. c.* p. 287 (Dakota); *Turner, Proc. U.S. Nat. Mus.* viii. p. 248 (1885: Fort Chimo); *A. O. U. Check-l.* p. 144 (1886); *Ridgw. Proc. U.S. Nat. Mus.* ix. p. 177 (1886: Puebla); *Everm. Auk*, iii. p. 91 (1886); *Scott, t. c.* p. 386 (Arizona); *Anthony, t. c.* p. 164; *Lloyd, Auk*, iv. p. 185 (1887); *Nelson, N. H. Coll. Alaska*, p. 97 (1887: Fort Yukon); *Wells, Proc. U.S. Nat. Mus.* ix. p. 269 (1887: Grenada); *Towns. op. cit.* x. pp. 197, 234 (1887: N. California); *Beckham, t. c.* p. 637 (Bexar Co., Texas); *Merrill, Auk*, v. p. 144 (1888: Oregon); *Chapm. t. c.* p. 270 (Florida); *Everm. t. c.* p. 348 (Indiana); *Warren, B. Pennsylv.* p. 31, pl. 8 (1888); *Salvin, Ibis*, 1889, p. 378 (Cozumel); *Feilden, t. c.* pp. 480, 499 (Barbados); *Cory, B. West Indies*, p. 258 (1889); *Scott, Auk*, vi. p. 156 (1889: Florida); *Pindar, t. c.* p. 312 (Kentucky); *Thompson, Proc. U.S. Nat. Mus.* xiii. p. 496 (1890: Manitoba); *Mearns, Auk*, vii. p. 52 (1890: Arizona); *Miller, Auk*, viii. p. 119 (1891: Massachusetts); *Ridgw. t. c.* pp. 335, 338 (Bahamas); *Merriam, N. Amer. Faun.* (*U. S. Dep. Agric.*) no. 3, p. 88 (1890: S. Francisco Mts.); *id. op. cit.* no. 5, pp. 19, 91 (1891: Idaho); *Hayerup, B. Greenl. ed. Chambert.* p. 54 (1891); *Scott, Auk*, ix. pp. 12, 212 (1892: Jamaica); *Attwater, t. c.* p. 232 (S. Texas: breeding).

Fulica wilsoni, *Steph. in Shaw's Gen. Zool.* xii. pt. i. p. 236 (1824); *Brehm, Vogelf.* p. 323 (1855).

Fulica atra (*nec L.*), *D'Orb. in Ramon de la Sagra's H. N. Cuba*, p. 211 (1840).

Adult. General colour above brown, slightly washed with olive; scapulars and wing-coverts slaty grey; bastard-wing, primary-coverts, and quills light ashy brown, darker brown at the ends; the outer secondaries with broad white tips; first primary white along the outer web, as also the outer feathers of the bastard-wing; tail-feathers blackish; head and neck black all round, the mantle and sides of neck slaty grey; rest of under surface from the fore neck light asby, the sides of the body slaty grey; the abdomen paler; vent black; under tail-coverts white, the long centre feathers black; under wing-coverts and axillaries slaty grey, with narrow whitish edgings; the edge of the wing white: "bill milk-white, more bluish white terminally, each mandible with a spot of dark brown near the end, bordered anteriorly with a more or less distinct bar of reddish chestnut; frontal shield dark chestnut or liver-brown, the culmen just in front of this tinged with greenish yellow; legs bright yellowish green, the tibia tinged behind and above with orange-red; toes light bluish grey, tinged with yellowish green on the scutellæ of basal phalanges; iris bright crimson" (*Baird, Brewer, & Ridg-*

way). Total length 14 inches, culmen with frontal shield 1·6, wing 7·1, tail 2·1, tarsus 2, middle toe and claw 3·1.

Hab. North America and Central America.

a. Ad. sk.	49th Parallel, April 28 (*G. Dawson*).	N.A. Boundary Commission.
b, c, d. Ad. et imm. sk.	British Columbia.	J. K. Lord, Esq. [P.].
e. ♂ ad. sk.	Carson, Nevada, Dec. 14 (*Hensh. Coll.*).	Salvin-Godman Coll.
f. Imm. sk.	Chicago, Ill. (*Hensh. Coll.*).	Salvin-Godman Coll.
g. Juv. sk.	Ontonagon, Michigan, Sept. 25 (*A. J. Dayan*: *Hensh. Coll.*).	Salvin-Godman Coll.
h, i, k. Pull. sk.	St. Clair Flats, Michigan (*Hensh. Coll.*).	Salvin-Godman Coll.
l, m, n. Ad. et juv. sk.	New Haven, Connecticut, Sept., Oct. (*A. J. Dayan*).	Salvin-Godman Coll.
o. Ad. sk.	Lake Borgue, Louisiana, Dec. (*Hensh. Coll.*).	Salvin-Godman Coll.
p. ♂ ad. sk.	Fort Bridger, Utah, Jan. 10 (*C. Drexler*).	Salvin-Godman Coll.
q. ♂ ad. sk.	Ocklawaha, Florida, April 17 (*W. J. Elstun*: *Hensh. Coll.*).	Salvin-Godman Coll.
r, s. ♂ ad. sk.	De Soto Co., Florida, Nov. (*W. R. Dean*).	Salvin-Godman Coll.
t–y. ♂ ad.; *z, a'*. ♀ ad. sk.	Corpus Christi, Oct., Dec., May (*F. B. Armstrong*).	Salvin-Godman Coll.
b'. Ad. sk.	Mexico.	Old Coll.
c'. ♂ ad. sk.	Mazatlan, W. Mexico, Jan. 11 (*A. Forrer*).	Salvin-Godman Coll.
d', e'. ♂ ad.; *f'*. ♀ ad. sk.	Presidio, Jan., Feb. (*A. Forrer*).	Salvin-Godman Coll.
g'–m'. ♂ ♀ ad. sk.	Tamesi, near Tampico, March (*W. B. Richardson*).	Salvin-Godman Coll.
n'. ♂ ad. sk.	Puebla, Nov. 4 (*Ferrari-Perez*).	Salvin-Godman Coll.
o'. Ad. sk.	Jomatta, Vera Cruz, June (*M. Trujillo*).	Salvin-Godman Coll.
p', q'. Ad.; *r'*. Pull. sk.	Lake of Dueñas, Guatemala, Nov., Dec., July (*O. S.*).	Salvin-Godman Coll.
s'. Ad. sk.	Lake of Peten, Guatemala, April (*O. S.*).	Salvin-Godman Coll.
t'. Ad. sk.	Coban, Vera Paz, Nov. (*O. S.*).	Tweeddale Coll.
u'. Ad. sk.	Calobre, Veragua (*E. Arcé*).	Salvin-Godman Coll.
v'. ♂ ad. sk.	Laguna del Castillo, Veragua (*E. Arcé*).	Salvin-Godman Coll.
w', x', y'. Ad. sk.	Cozumel Island, June (*G. F. Gaumer*).	Salvin-Godman Coll.
z'. Ad. sk.	Jamaica ?	Rev. W. Hennah [P.]. (One of the types of *Fulica frontata*, Gray, List Gralla, p. 124.)
a''. Ad. sk.	Grenada, April 4 (*D. W. Smith*).	Salvin-Godman Coll.
b''. Sternum.	Jamaica.	Gosse Coll.

10. Fulica caribæa.

Fulica caribæa, *Ridgway, Proc. U.S. Nat. Mus.* vii. p. 358 (1884); *Cory, B. West Ind.* p. 259 (1889); *id. Auk*, viii. p. 46 (1891).

Adult. Similar to *F. americana*, but differing in the shape of the frontal shield. Total length 13·5 inches, culmen with frontal shield 2, wing 6·9, tail 1·9, tarsus 2·1, middle toe and claw 3·1.

Hab. Islands of Anguilla, Guadeloupe, and S. John, in the Lesser Antilles. Probably also in Grenada Island.

Mr. Ridgway states that *F. caribæa* differs further from *F. americana* in the slenderer bill and in the form and colour of the frontal shield, the latter being "oval or elliptical, much wrinkled, ·70–·90 of an inch long and ·35–·30 wide in the breeding season; its colour pale brownish (whitish in life?) instead of chestnut or liver-brown as in *F. americana*." Mr. Ridgway has very kindly sent me a specimen of the species from Guadeloupe, and I must confess that the form of the shield is different from any of those which we possess from North America.

11. Fulica leucoptera.

Focha, *Azara, Apunt.* iii. p. 472 (1802).

Fulica leucoptera, *Vieill. Nouv. Dict.* xii. p. 48 (1817); *Gray, Gen. B.* iii. p. 600 (1845); *Hartl. Ind. Azara*, p. 28 (1847); *Burm. Th. Bras.* iii. p. 391, note (1856); *id. Reis. La-Plata St.* ii. p. 505 (1861: Parana); *Scl. & Salv. P. Z. S.* 1866, p. 468; *iid. Ex. Orn.* p. 119, pl. 60 (1868); *Gray, Hand-l. B.* iii. p. 68, no. 10520 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 140 (1873); *Durnf. Ibis*, 1877, p. 95, 1878, p. 67 (Buenos Ayres); *Scl. & Salv. P. Z. S.* 1879, p. 641 (Chiquitos); *White, P. Z. S.* 1883, p. 42 (Cordova); *Barrows, Auk*, i. p. 277 (1884: Lower Uruguay); *Scl. P. Z. S.* 1886, p. 403 (Huasco); *Withington, Ibis*, 1888, p. 472 (Lomas de Zamora); *Scl. & Hudson, Argent. Orn.* ii. p. 158 (1889); *Ridgw. Proc. U.S. Nat. Mus.* xii. p. 137 (1889: Sandy Point); *Holland, Ibis*, 1890, p. 427 (Buenos Ayres, breeding); *Oust. Miss. Sci. Cap Horn*, vi. *Ois.* p. 134 (1891: Beagle Canal); *Holland, Ibis*, 1892, p. 210 (Estancia, Espartilla; breeding).

Fulica gallinuloides, *King, Zool. Journ.* iv. p. 96 (1828); *Scl. P. Z. S.* 1878, p. 291; *Gibson, Proc. Phys. Soc. Edinb.* 1876–78, p. 184.

Fulica leucopyga, *Wagler, Isis*, 1831, p. 516.

Fulica stricklandi, *Hartl. J. f. O.* 1853, Extrah. p. 86; *Scl. P. Z. S.* 1867, p. 339.

Fulica chloropoides (*nec King*), *Landb. Arch. f. Naturg.* xxviii. p. 218 (1862).

Adult female. Similar to *F. americana*, but darker; slaty grey above and below, and having both mandibles entirely yellow: "frontal shield chrome-yellow; bill chrome-yellow, with the tips of the mandibles greenish; feet very pale sea-green, with the webs, joints, and claws black; iris fiery red" (*Dr. Hahn*). Total length 11 inches, culmen with frontal shield 1·65, wing 7·3, tail 2·2, tarsus 2, middle toe and claw 3·1.

Hab. Southern Brazil to Bolivia and Peru, south to Chili and Patagonia.

a. Ad. sk.	Lake Titicaca, Peru.	Salvin-Godman Coll.
b. ♀ ad. sk.	Sacaya, Tarapacá, Jan. 24.	Berkeley James Coll.
c. Ad. sk.	Quilmes, Buenos Ayres, Aug. 20 (*W. H. Hudson*).	Salvin-Godman Coll.
d. ♀ ad. sk.	La Plata, Buenos Ayres, Nov. 4 (*E. W. White*).	Salvin-Godman Coll.
e, *f*, *g*. Ad. sk.	Patagonia (*Capt. King*).	Old Coll. (Types of *Fulica gallinuloides*.)

12. Fulica alai.

Fulica atra (*nec L.*), *Bloxham, Voy.* '*Blonde*,' p. 251 (1826).
Fulica alai, *Peale, U.S. Expl. Exped., Birds*, p. 224 (1848); *Hartl. Arch. f. Naturg.* xviii. p. 137 (1852); *id. J. f. O.* 1854, p. 176; *Cass. U.S. Expl. Exped., Birds*, p. 306, Atlas, pl. xxxvi. (1858); *Gray, Cat. B. Trop. Isl. Pacific Ocean*, p. 54 (1859); *Cass. Proc. Philad. Acad.* 1862, p. 322 (Hilo); *Gray, Hand-l. B.* iii. p. 68, no. 10519 (1871); *Pelz. Verh. z.-b. Ges. Wien*, xxiii. p. 159 (1873); *Streets, Bull. U.S. Nat. Mus.* no. 7, p. 21 (1877: Oahu); *Scl. P. Z. S.* 1878, p. 351; *Finsch, Ibis*, 1880, p. 78; *Scl. Voy.* '*Challenger*,' ii. p. 99 (1881); *Ridgw. Proc. U.S. Nat. Mus.* iv. p. 331 (1882); *Stejn. op. cit.* x. p. 80 (1887), xi. p. 95 (1888: Kauai).

Adult male. Similar to *F. leucoptera*, but having a much larger and stouter bill and much broader white tips to the outer secondaries: "bill flesh-colour with a yellowish tinge; feet pale slate-colour; iris red" (*J. Murray*): "feet uniform pale greyish, without any greenish band on the joint of the knee" (*O. Finsch*). Total length 11·5 inches, culmen with frontal shield 2·15, wing 7, tail 1·65, tarsus 2·2, middle toe and claw 3·2.

Hab. Sandwich Islands.

a. ♀ ad. sk.	Hilo, Owhyhee.	Voy. H.M.S. 'Challenger.'

54. LEGUATIA.

Type.

Leguatia, *Schlegel, Versl. Med. Akad. Wetensch. Amst.* (*Natuurk.*) vii. p. 142 (1858) ..... L. gigantea.

Range. Formerly living in Mauritius.

1. Leguatia gigantea.

The Giaut Bird, *Leguat, Voy.* (*Engl. Ed.*) p. 171 (1708).
Gallinula (Leguatia) gigantea, *Schl. Ibis*, 1866, pp. 146–168, cum fig.; *id. Ann. Sci. Nat.* (v.) vi. pp. 25–49, pl. i. figs. 1, 2.
Leguatia gigantea, *Shufeldt, Cent. Mag.* 1886, p. 361.

Hab. Mauritius: now extinct.

The following fossil genera of *Rallidæ* have been placed at the end of the series, as their exact position in the family has not yet been determined :—

55. GYPSORNIS.

	Type.
Gypsornis, *Milne-Edwards, Oiseaux Fossiles de la France*, ii. p. 140 (1869–71)	G. cuvieri.

1. **Gypsornis cuvieri.**

Gypsornis cuvieri, *Milne-Edwards, t. c.*; *Lydekker, Cat. Foss. B.* p. 159 (1891).

From the Upper Eocene of Montmartre, France.

56. TELMATORNIS.

	Type.
Telmatornis, *Marsh, Amer. Journ. Sci.* 1870, pp. 210, 211..	T. priscus.

1. **Telmatornis priscus.**

Telmatornis priscus, *Marsh, t. c.*

From the Cretaceous Greensand of New Jersey.

2. **Telmatornis affinis.**

Telmatornis affinis, *Marsh, t. c.*

From the Cretaceous Greensand of New Jersey.

57. ORTHOCNEMUS.

	Type.
Orthocnemus, *Milne-Edwards, C. R. 2nd Congrès Intern. Budapest*, ii. p. 74 (1892)	O. gallicus.

1. **Orthocnemus gallicus.**

Orthocnemus gallicus, *Milne-Edwards, t. c.* p. 74 (1892).

From the Upper Eocene of S. France.

2. **Orthocnemus cursor.**

Orthocnemus cursor, *Milne-Edwards, t. c.* p. 76 (1892).

From the Upper Eocene of S. France.

3. **Orthocnemus major.**

Orthocnemus major, *Milne-Edwards, t. c.* p. 76 (1892).

From the Upper Eocene of S. France.

4. **Orthocnemus minor.**

Orthocnemus minor, *Milne-Edwards, t. c.* p. 77 (1892).

From the Upper Eocene of S. France.

58. ELAPHROCNEMUS.

Elaphrocnemus, *Milne-Edwards, C. R. 2nd Congrès Orn. Intern. Budapest*, ii. p. 77 (1892)..... Type. E. phasianus.

1. Elaphrocnemus phasianus.

Elaphrocnemus phasianus, *Milne-Edwards, t. c.* p. 77 (1892).

From the Upper Eocene of S. France.

2. Elaphrocnemus gracilis.

Elaphrocnemus gracilis, *Milne-Edwards, t. c.* p. 78 (1892).

From the Upper Eocene of S. France.

3. Elaphrocnemus crex.

Elaphrocnemus crex, *Milne-Edwards, t. c.* p. 78 (1892).

From the Upper Eocene of S. France.

59. TAPINOPUS.

Tapinopus, *Milne-Edwards, C. R. 2nd Congrès Orn. Intern. Budapest*, ii. p. 79 (1892) ..... Type. T. elliotti.

1. Tapinopus ellioti.

Tapinopus ellioti, *Milne-Edwards, t. c.* p. 79 (1892).

From the Upper Eocene of S. France.

The following species of extinct Rails have been placed under the genus *Rallus*; but inasmuch as they are founded mostly on single bones, the exact genera to which they belong may be modified on a discovery of further remains, and I have therefore contented myself with merely recording them (*cf.* Lydekker, Cat. Foss. B. p. 144):—

1. Rallus dispar.

Rallus dispar, *Milne-Edwards, Oiseaux Fossiles de la France*, i. p. 155 (1867–68); *Lydekker, Cat. Foss. B.* p. 144 (1891).

From the Middle Miocene of Sansan (Gers), France.

2. Rallus beaumonti.

Rallus beaumonti, *Milne-Edwards, op. cit.* ii. p. 152 (1869–71); *Lydekker, t. c.* p. 145.

From the Middle Miocene of Sansan.

3. **Rallus major.**

Rallus major, *Milne-Edwards, t. c.* p. 157; *Lydekker, t. c.* p. 145.

From the Middle Miocene of Sansan.

4. **Rallus**, sp.

Rallus, sp., *Lydekker, t. c.* p. 145.

From the Lower Miocene (Upper Oligocene) of Weissenau, near Mayence, Germany.

5. **Rallus porzanoides.**

Rallus porzanoides, *Milne-Edwards, t. c.* p. 150; *Lydekker, t. c.* p. 145.

From the Lower Miocene (Upper Oligocene) of Allier, France.

6. **Rallus christyi.**

Rallus christyi, *Milne-Edwards, t. c.* p. 146; *Lydekker, t. c.* p. 145.

From the Lower Miocene of Allier, France.

7. **Rallus eximius.**

Rallus eximius, *Milne-Edwards, t. c.* p. 149; *Lydekker, t. c.* p. 146.

From the Lower Miocene of Allier.

8. **Rallus intermedius.**

Rallus intermedius, *Milne-Edwards, t. c.* p. 144; *Lydekker, t. c.* p. 146.

From the Upper Eocene (Lower Oligocene) of Montmartre, France.

9. **Rallus dasypus.**

Rallus dasypus, *Milne-Edwards, C. R. 2nd Congrès Intern. Budapest*, ii. p. 73 (1892).

From the Upper Eocene of St. Antonin, France.

10. **Rallus arenarius.**

Rallus arenarius, *Milne-Edwards, t. c.* p. 73 (1892).

From the Upper Eocene of Caylux, France.

Family II. HELIORNITHIDÆ.

Palate schizognathous.
Nasals holorhinal.
Rectrices 18.
Cæca moderately long.
Oil-gland tufted.
No aftershaft to contour-feathers.

Sternum elongated, with a single notch; keel of the sternum low.

Clavicles with an anterior and posterior interclavicular process, the latter firmly attached to the keel of the sternum.

Basipterygoid processes absent.

Occipital foramina and supraorbital furrows absent; no greatly developed temporal fossæ.

Biceps slip ending freely on patagial membrane; expansor secundariarium well developed.

Ambiens, femoro-caudal, accessory femoro-caudal, and semitendinosus muscles present; accessory semitendinosus absent; relations of biceps cruris peculiar (*cf.* Beddard, *l. c.*).

Plumage close-set and general appearance that of a diving Rail; toes with scalloped lateral webs.

Nest and eggs unknown. Young of *Heliornis*, according to Neuwied, two, hatched naked.

N.B.—Most of the above characters are derived from Mr. F. E. Beddard's paper on the anatomy of *Podica senegalensis* (P. Z. S. 1890, pp. 425–443, pl. xxxix.).

Key to the Genera.

a. Tail elongated, stiffened and ribbed, the feathers pointed and narrow ..... 1. PODICA, p. 229.
b. Tail short and rounded, the feathers not stiffened but rather soft and broad.
a'. Toes united only at base with a web, and not banded with yellow ..... 2. HELIOPAIS, p. 232.
b'. Toes united by a web for nearly two thirds of their length, banded with black and yellow ..... 3. HELIORNIS, p. 233.

1. PODICA.

	Type.
Podica, *Less. Traité d'Orn.* p. 596 (1831)	P. senegalensis.
Rhigelura, *Wagler, Isis*, 1832, p. 1229	P. senegalensis.
Podoa, *Ep.* (*nec Illig.*) *Consp.* ii. p. 182 (1855)	P. senegalensis.

Range. Confined to Africa.

1. Podica senegalensis.

Heliornis senegalensis, *Vieill. N. Dict. d'Hist. Nat.* xiv. p. 277 (1817); *id. Gal. Ois.* ii. pl. 280 (1825); *Schl. Mus. Pays-Bas*, Urinatores, p. 49 (1867: Senegal; Gold Coast).

Podica senegalensis, *Less. Traité*, p. 596 (1831); *Gray, Gen. B.* iii. p. 634, pl. 173 (1844); *id. List Grallæ Brit. Mus.* p. 124 (1844); *Reichenb. Handb., Fulic.* tab. cxiv. figs. 1141–42 (1850); *Hartl. Orn. Westafr.* p. 249 (1857: Ashantee; Cape Palmas), p. 275 (Muni R.); *Cass. Proc. Philad. Acad.* 1859, p. 175 (Camma R.); *Hartl. J. f. O.* 1861, p. 273; *Sharpe, Ibis*, 1870, p. 488 (Fantee); *Gray, Hand-l. B.* iii. p. 69, no. 10526 (1871); *Sharpe, P. Z. S.* 1871, p. 614 (Cameroons); *Reichen. J. f. O.* 1874, p. 375 (Gold Coast); *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 314 (1876: R. Louemba, Congo); *Reichen. J. f. O.* 1877, p. 12 (Loango Coast); *Bocage, Orn. Angola*, p. 487 (1881); *Oustalet, N. Arch. Mus.* (2) ii. *Bull.* p. 145 (1879: Gaboon); *Büttik. Notes Leyden Mus.* viii. p. 267 (1886: Liberia), x. p. 103 (1888), xi. pp. 128, 137 (1889); *Reichen. J. f. O.* 1890, p. 108 (Cameroons).

Rhigelura senegalensis, *Wagler, Isis*, 1832, p. 1229.

Podoa senegalensis, *Bp. Consp.* ii. p. 182 (1855).

Podoa josephina, *Bp. Consp.* ii. p. 182 (1855).

Podoa pucherani, *Bp. C. R.* xliii. p. 994 (1856).

Podica sp., *Heugl. Orn. N.O.-Afr.* ii. Abth. i. p. 1249 (1871).

Podica josephina, *Gray, Hand-l. B.* iii. p. 69, no. 10527 (1871).

Adult. General colour above dark brown, with a greenish-black gloss on the feathers of the mantle, back, and scapulars, these parts being spangled with rounded ochreous spots, each spot surrounded by greenish black; lower back, rump, and upper tail-coverts uniform brown; wing-coverts brown like the back, but the spots rather whiter; bastard-wing, primary-coverts, and quills uniform dark brown; upper tail-coverts brown like the back, but spotted with white; tail-feathers black with a greyish gloss, the shafts brown, the tips of the feathers narrowly edged with fulvous; crown of head and hind neck blackish with a greenish gloss; lores ashy; feathers round the eye and sides of face, sides of neck, and entire throat ashy grey, more or less mottled with streaks of triangular spots of white; from behind the eye a distinct line of white traversing the whole of the sides of the neck, a second broader band of white from below the eye along the lower sides of the neck, this band not so distinct as it is mottled with spots of ashy grey; remainder of under surface of body white with a slight fulvous tinge, the fore neck slightly mottled with black, the sides of the body more distinctly mottled with bars of black and yellowish white, these bars less distinct on the flanks and under tail-coverts; under wing-coverts and axillaries dusky blackish, with regular bars of black and white: "bill coral-red, the culmen black; feet coral-red; iris pale brown" (*J. Büttikofer*). Total length 21 inches, culmen 2, wing 7·8, tail 6·8, tarsus 1·45, middle toe and claw 2·3.

Female. Smaller than the male; the mantle with a few rounded buff spots, which are posteriorly margined with black; throat white (*Hartlaub*).

Young. Entirely brown above, without any spots; throat and under surface of body white, with a tawny tinge on the fore neck, sides of body, and under tail-coverts, with merely a few fulvescent spots on the sides of the body and flanks.

For the changes of plumage in this species, and its probable identity with *P. petersi*, Mr. Büttikofer's remarks (Notes Leyden Mus. 1888, p. 104) must be consulted.

Hab. West Africa from Senegambia to the Congo.

a, b. Ad. et juv. st.	Senegal.	Baron Laugier.
c, d. Ad. et juv. sk.	River Gambia (*Sir A. Moloney*).	Shelley Coll.
e. Ad. sk.	Ancobra River, Axim.	Dr. Ogilvie Ross [P.].

2. Podica petersi.

Podica petersi, *Hartl. Abhandl. nat Ver. Hamburg*, ii. p. 62 (1852); *id. Orn. W.-Afr.* p. 250, note (1857); *Gurney, Ibis*, 1860, p. 206 (Natal); *Finsch & Hartl. Vög. Ostafr.* p. 790 (1870); *Gray, Hand-l. B.* iii. p. 69, no. 10528 (1871); *Gurney, in Anderss. B. Damara-Ld.* p. 345, note (1872); *Sharpe & Bouvier, Bull. Soc. Zool. France*, iii. p. 80 (1878: Rio Chiloango); *Fischer, J. f. O.* 1879, p. 297 (Muniuni); *Bocage, Orn. Angola*, p. 488 (1881); *Sharpe, ed. Layard's B. S. Afr.* p. 625, pl. xii. (1884: E. London; Buffalo R.); *Shelley, Ibis*, 1882, p. 367 (Rustenberg); *Fischer, J. f. O.* 1885, p. 117 (Muniuni).

Podica mosambicana, *Peters, Ber. Verh. k. Preuss. Akad. Berlin*, 1853, p. 783; *Layard, Ibis*, 1869, p. 77 (Kareiga R.).

Heliornis impipi, *Licht. Nomencl. Av.* p. 104 (1854).

Podoa mosambicana, *Bp. Consp.* ii. p. 182 (1857).

Adult male. Similar to *P. senegalensis*, but larger and with less distinct ochreous spotting on the back and scarcely any on the upper tail-coverts; the whole of the sides of the face, sides of neck, and throat grey, with scarcely any trace of a white band down the sides of the neck: "upper mandible black, with red margins; under mandible red, with black margins; legs and feet bright red; iris light reddish brown" (*T. Ayres*). Total length 23 inches, culmen 2·4, wing 9·8, tail 6·5, tarsus 2·2, middle toe and claw 3·4.

Adult female. Similar to the male, but smaller, with a distinct line of white down the sides of the neck; throat and under surface of body white; lower throat and fore neck freckled with blackish bands: "iris whitish brown" (*T. Ayres*). Total length 23 inches, culmen 2, wing 9·5, tail 7, tarsus 2·3, middle toe and claw 3·1.

Mr. Büttikofer, from his experiences in Liberia, has suggested that there is only one species of *Podica* in Africa, and that *P. petersi* is inseparable from *P. senegalensis*. With the material at my command I have found it very difficult to determine this question; but the adult specimens from S. Africa are conspicuously larger than those from the Western part of the continent, and have less spotting on the back, with scarcely any upon the upper tail-coverts; they also have the sides of the face and throat almost uniform grey, the white bands on the sides of the neck apparently disappearing

altogether. This may be the case also with the West-African species, but I have not as yet seen a West-African specimen in which the white bands on the sides of the neck were entirely obsolete. I therefore separate *P. petersi* for the present, until I have had the opportunity of examining a larger series of *P. senegalensis*.

Hab. S.E. Africa from British Caffraria north to the Zanzibar district in Eastern Africa, and to the Lower Congo in West Africa.

a. Juv. st.	South Africa.	Sir A. Smith [C.].
b–e. Imm. sk.	South Africa.	Sir A. Smith [C.].
f. ♀ ad. sk.	Kingwilliamstown, May 7.	Major Trevelyan [C.].
g. ♂ ad. st.	Natal (*T. Ayres*).	J. H. Gurney, Esq. [P.].
h. Imm. sk.	Rustenberg, Transvaal (*J. S. Jameson*).	Shelley Coll.
i. ♀ ad. st.	Mozambique.	Purchased.
k. Ad. sk.	East Africa.	Old Coll.

2. HELIOPAIS.

Type.

Podica, pt., *auct. recent.*

Heliopais, *Sharpe, Bull. Brit. Orn. Club*, no. vii. p. xxxvii (March 1893) ..... H. personata.

Range. The same as that of the single species of the genus.

1. Heliopais personata.

Podica personata, *Gray, P. Z. S.* 1848, p. 90, *Aves*, pl. 4; *Reichenb. Handb., Fulic., Novit.* tab. cxiv. figs. 2948–49 (1850); *Bp. Consp.* ii. p. 182 (1857); *Blyth, J. A. S. Beng.* xxviii. p. 411 (1859: Moulmein); *id. Ibis*, 1862, p. 91 (Tavoy River); *Jerd. B. Ind.* iii. p. 721; *Gray, Hand-l. B.* iii. p. 69, no. 10529 (1871); *Hume, Str. F.* ii. p. 483 (1874), iii. p. 185 (1875); *Blyth, B. Burm.* p. 162 (1875); *Hume & Davison, Str. F.* vi. p. 465 (1878); *Hume, Str. F.* viii. p. 70 (1879: Malacca); *Oates, Str. F.* x. p. 241 (1882: Engmah Swamp); *id. Handb. B. Brit. Burm.* ii. p. 353 (1883: Karen-nee).

Podoa personata, *Blyth, Ibis*, 1859, p. 466.

Heliornis personata, *Schl. Mus. Pays-Bas*, Urinatores, p. 49 (1867: Sumatra).

Heliopais personata, *Sharpe, Bull. Brit. Orn. Club*, no. vii. p. xxxvii (1893).

Adult male. General colour above brown with an olive-greenish gloss; wing-coverts like the back; bastard-wing, primary-coverts, and quills dark brown; lower back and rump brown, the upper tail-coverts slightly lighter brown; tail-feathers dark brown with narrow whitish tips; fore part of crown black, extending in a streak on each side of the occiput; hinder crown and hind neck leaden grey; feathers round the eye and ear-coverts, sides of face, and entire throat black, ending in a point on the lower throat, separated on the sides of the neck by a narrow line of white; sides of neck

and lower throat olive-brown with a greenish tinge; fore neck and entire sides of body brown, rather paler on the former; entire breast white; the outer flank-feathers and under tail-coverts barred with light brown and white; under wing-coverts, axillaries, and quills below sooty brown: "bill orange-yellow, paler at the tip; tarsi and toes light green, the webs turning to yellow towards the edges; claws horn-colour; iris hazel-brown; edges of eyelids yellow" (*E. W. Oates*). Total length 20 inches, culmen 2·2, wing 9·6, tail 4·7, tarsus 2, middle toe and claw 3·1.

Adult female. Similar to the male on the upper surface, but distinguished by its white throat and fore part of cheeks, the white being surrounded by the black on each side of the face descending down the throat and meeting in a point: "bill dull yellow, shaded about the middle with brown; iris ochreous yellow; eyelids pea-green" (*W. Davison*). Total length 20 inches, culmen 2, wing 9, tail 4·8, tarsus 1·8, middle toe and claw 2·7.

Young. Resembles the adult female, but is much duller in colour, with less green above, the head browner than in the adult hen; throat white, surrounded by the same black band as in the adult female, but not so broad and complete.

Hab. From Karennee to Cambodia, south through Tenasserim to Malacca and Sumatra.

a. ♂ ad. sk.	Karen-nee (*Lloyd*).	Oates Coll.
b. ♂ ad. sk.	Engmah Swamp, Prome district, July 7 (*E. W. O.*).	Oates Coll.
c. ♂ ad. sk.	Mergui, Tenasserim, Jan. 30 (*W. Davison*).	Hume Coll.
d. ♀ ad. sk.	Amherst, March 3.	Hume Coll.
e. ♀ juv. sk.	Kintoh, Houngthraw R. (*J. Darling*).	Hume Coll.
f. ♀ ad. sk.	Bankasoon, Feb. 28 (*W. D.*).	Hume Coll.
g. Ad. sk.	Klang, Selangore, Jan. 14 (*W. D.*).	Hume Coll.
h. Imm. sk.	Malacca, Sept. (*W. D.*).	Hume Coll.
i. ♂ ad. sk.	Malacca.	Earl of Ellenborough [P.]. (Type of species.)
k. ♀ ad. sk.	Cambodia.	M. Mouhot [C.].

3. HELIORNIS.

Type.

Heliornis, *Bonn. Tab. Méth.* i. *Introd.* p. 64 (1790) ..... H. fulica.
Podoa, *Illiger, Prodr.* p. 267 (1811) ..... H. fulica.

Range. The same as that of the single species of the genus.

1. Heliornis fulica.

Le Grebifoulque de Cayenne, *Daubent. Pl. Enl.* ix. pl. 893.
Le Grèbe-foulque, *Buff. Hist. Nat. Ois.* viii. p. 248 (1781).
The Surinam Tern, *Brown, Ill. Zool.* p. 98, pl. xxxix. (1776).
Surinam Darter, *Lath. Gen. Syn.* iii. pt. 2. p. 626 (1785).
Colymbus fulica, *Bodd. Tabl. Pl. Enl.* p. 54 (1783).

Plotus surinamensis, *Gm. Syst. Nat.* i. p. 581 (1788).
Heliornis fulicarius, *Bonn. Enc. Méth.* i. p. 65 (1790); *Reichenb. Handb., Fulic.* tab. cxiv. figs. 1139-40 (1850); *Bp. Consp.* ii. p. 181 (1854).
Dedales, *Azara, Apunt.* iii. p. 468 (1802).
Podoa surinamensis, *Illiger, Prodr.* p. 267 (1811); *Neuwied, Beitr. Naturg. Bras.* iv. p. 823 (1832); *Hartl. Ind. Azara*, p. 28 (1847); *Cab. in Schomb. Reis. Guian.* iii. p. 765 (1848); *Licht. Nomencl.* p. 104 (1854); *Burm. Th. Bras.* iii. p. 391 (1855).
Heliornis surinamensis, *Jard. ed. Wilson's Amer. Orn.* iii. p. 204 (1832); *Gray, List Grallæ Brit. Mus.* p. 124 (1844).
Heliornis fulica, *Gray, Gen. B.* iii. p. 634 (1844); *Scl. & Salv. Ibis*, 1859, p. 234 (Santana Mixtan); *Lawr. Ann. Lyc. N. Y.* vii. p. 302 (1861: Panama); *Scl. & Salv. P. Z. S.* 1864, p. 373 (Panama); *iid. P. Z. S.* 1866, p. 200 (Upper Ucayali); *Léot. Ois. Trinid.* p. 531 (1866); *Scl. & Salv. P. Z. S.* 1867, pp. 754, 979 (Pebas); *Schl. Mus. Pays-Bas*, Urinatores, p 48 (1867: Cayenne); *Scl. & Salv. P. Z. S.* 1868, p. 469; *Pelz. Orn. Bras.* p. 318 (1871: R. Araguay, R. Rande, Matogrosso, R. Curicuriare, Forte do Rio Branco); *Scl. & Salv. P. Z. S.* 1873, p. 309 (Chyavetas); *iid. Nomencl. Av. Neotr.* p. 140 (1873); *iid. P. Z. S.* 1879, p. 546 (Antioquia); *Ridgw. Proc. U.S. Nat. Mus.* iii. p. 237 (1880); *Zeledon, Proc. U.S. Nat. Mus.* viii. p. 114 (1885: Costa Rica); *Salvin, Ibis*, 1886, p. 177 (Merumé Mts.); *Allen, Bull. Amer. Mus. N. H.* ii. p. 107 (1889: Lower Beni, Bolivia).
Heliornis fulicaria, *Reichenb. Handb. Spec. Orn.* p. xxi (1852).

Adult female. General colour above uniform olive-brown, becoming clearer brown on the lower back and gradually inclining to ruddy brown on the rump and upper tail-coverts; wing-coverts like the back; bastard-wing, primary-coverts, and quills uniform brown, washed with olive externally, the inner secondaries like the back; tail-feathers dark brown, edged with white at their ends; crown of head glossy blue-black, extending a little way on the hind neck; lower hind neck olive like the back; lores white, with a small supraloral mark of brown, followed by a white superciliary streak of white; feathers round the eye white; a black spot at the gape; ear-coverts and hinder cheeks light chestnut or bay; above the ear-coverts a band of blue-black running from behind the eye and joining the greenish black of the nape; behind the ear-coverts a band of white, traversing the sides of the neck and separating the black of the hind head and neck from another band of black which commences behind the rufous ear-coverts and skirts the white band to the sides of the neck, where it slightly widens and unites on the lower throat, so as to enclose the white of the throat and malar region; breast and abdomen white; the fore neck and chest sandy buff and separated from the black on the lower throat by a small white patch; sides of body olive-brown, more distinctly seen on the flanks; under tail-coverts brown, the long coverts tipped with white like the tail-feathers; under wing-coverts and axillaries brown, with white tips to many of the median series; quills uniform brown below: "bill bright red with a slight black mark on the culmen and behind the nostrils, under mandible whitish with a whitish-

yellow streak near the base ; toes clear yellow, the middle one with three black cross-bands, the inner one with two, and the outer one with four ; iris greyish brown " (*Neuwied*). Total length 12 inches, culmen 1·25, wing 5·9, tail 3·5, tarsus 0·8.

Young. Much more reddish brown than the adults, especially on the rump and upper tail-coverts ; the head also brown, with black feathers only on the nape ; the markings on the sides of the head and neck as in the adult, but the sides of the face white, not chestnut, and the black lateral bands on the neck only indicated by dusky feathers ; under surface of body pure white, with a little fulvous tinge on the fore neck, but the black band on the throat entirely absent ; the sides of the body more reddish brown than in the adults : bill horn-brown, not red, the lower mandible yellowish ; tip of bill white.

Hab. Southern Brazil to Amazonia, Guiana, Venezuela, and Colombia, as far north as British Honduras in Central America.

a. Ad. sk.	Central America.	Gould Coll.
b. Imm. sk.	Belize, British Honduras (*F. Blancaneaux*).	Salvin-Godman Coll.
c, *d*. ♂ imm. ; ♀ ad. sk.	Rio Makal, Western District, British Honduras, Feb. 8 (*F. Blancaneaux*).	Salvin-Godman Coll.
e. ♀ ad. sk.	Santana Mixtan, Guatemala, March 15 (*O. Salvin*).	Salvin-Godman Coll.
f. Imm. sk.	Chiapam, Guatemala (*O. Salvin*).	Salvin-Godman Coll.
g. ♀ ad. sk.	Costa Rica (*Endres*).	Salvin-Godman Coll.
h. Ad. sk.	Lion Hill, Panama.	Salvin-Godman Coll.
i. ♀ ad. sk.	Medellin, Antioquia (*T. K. Salmon*).	Salvin-Godman Coll.
k. Ad. st.	Cayenne.	H. C. Rothery, Esq. [P.].
l, *m*. Imm. sk.	Sarayacu, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
n, *o*. ♂ ♀ imm. sk.	Pebas, Eastern Peru, July, Aug. (*J. Hauxwell*).	Salvin-Godman Coll.
p. Imm. sk.	Pebas, Eastern Peru (*J. H.*).	Tweeddale Coll.
q. ♀ ad. sk.	Matogrosso, Brazil, Sept. 13 (*J. Natterer*).	Salvin-Godman Coll.
r. Ad. st.	South America.	Purchased.
s, *t*. Ad. et imm. sk.	South America.	Old Coll.
u. Skeleton.	South America.	Salvin-Godman Coll.

Order XI. ALECTORIDES.

Following Sclater's arrangement of the families of Wading Birds, I have adopted his Order *Alectorides*. Mr. Lydekker, however, in his 'Catalogue of Fossil Birds' (p. 160), reduces this order to the rank of a Suborder. He further says:—"The Schizognathous birds included in this suborder differ so markedly in their osteology that it is almost impossible to give characters to all the members. The angle of the mandible is, however, always truncated, and the humerus never has an ectepicondylar process." All the birds of this order have the hind toe raised above the level of the other toes (*Mesites* excepted, where the hallux seems to be on the same level as the other digits).

Family I. ARAMIDÆ.

Palate schizognathous.

Nasals schizorhinal.

Rectrices 12.

Cæca 2 and $2\frac{1}{4}$ inches long, somewhat dilated towards their blind end.

Oil-gland tufted.

Sternum as in the Cranes, with no posterior notches.

Femoro-caudal muscle absent. Accessory femoro-caudal thin and small. Semitendinosus and accessory semitendinosus fairly developed.

Bill longer than the head, curved and Rail-like. Nostrils perforated, linear, situated in a deep nasal groove which extends for two-thirds of the length of the bill. A very distinct lateral groove running for two-thirds of the length of the mandible.

Secondaries equal in length to the primaries, the first of which is peculiar, being sickle-shaped, narrowed and incised for the basal two-thirds and spatulate at the tip.

Four bare tracts on the body extending some way up the neck.

Nest placed amongst rushes in a marsh.

Eggs ten or twelve, large as a Turkey's, slightly elliptical, sparsely marked with blotches of pale brown and purple on a dull white ground, the whole egg having a powdered or downy appearance. (Hudson, in Scl. & Hudson, Argent. Orn. ii. p. 160.)

[Most of the above characters have been derived from the late Professor Garrod's memoir on the Anatomy of *Aramus scolopaceus* (P. Z. S. 1876, pp. 275–277). *Cf.* also Seebohm, Classif. B. p. 39; Stejneger, Stand. Nat. Hist. Birds, p. 127; Sharpe, Classif. B. p. 74.]

1. ARAMUS.

	Type.
Aramus, *Vieill. Analyse*, p. 58 (1816)	A. scolopaceus.
Notherodius, *Wagler, Isis*, 1829, p. 657.....	A. giganteus.

Range. Southern Florida and throughout Central America to Ecuador, Venezuela, and Guiana, and throughout the greater portion of Brazil.

1. Aramus scolopaceus.

Le Courlan de Cayenne, *Daubent. Pl. Enl.* viii. pl. 848.
Le Courliri ou Courlan, *Buff. Hist. Nat. Ois.* vii. p. 442 (1780).
Scolopaceous Heron, *Lath. Gen. Syn.* iii. pt. 1, p. 102 (1785).
Ardea scolopacea, *Gm. Syst. Nat.* i. p. 647 (1788, *ex Lath.*).
Caráu, *Azara, Apunt.* iii. p. 202 (1802).
Aramus scolopaceus, *Vieill. N. Dict. d'Hist. Nat.* viii. p. 301 (1817); *Gray, List Grallæ Brit. Mus.* p. 93 (1844); *id. Gen. B.* iii. App. p. 27 (1849, pt.); *Audub. B. Amer.* pl. cccl xxvii.; *id. B. Amer.* 8vo, p. 312; *Hartl. Ind. Azara*, p. 23 (1847); *Reichenb. Handb., Fulic.* tab. cxxvii. fig. 434 (1852); *Bp. Consp.* ii. p. 103 (1854, pt.); *Burm. Th. Bras.* iii. p. 380 (1856); *id. Reis. La-Plata St.* ii. p. 504 (1861: Parana); *Schl. Mus. Pays-Bas*, Ralli, p. 7 (1865: Cayenne); *Scl. & Salv. P. Z. S.* 1869, p. 160 (Argentina); *Gray, Hand-l. B.* iii. p. 59, no. 10406 (1871); *Pelz. Orn. Bras.* pp. 314, 458 (1871: Rio Parana, Rio Araguay, Caicara, Rio Branco); *Scl. & Salv. Nomencl. Av. Neotr.* p. 141 (1873); *iid. P. Z. S.* 1873, p. 308 (Ucayali River); *Hudson, P. Z. S.* 1876, p. 102 (Buenos Ayres); *Garrod, t. c.* p. 276 (Anatomy); *Durnf. Ibis*, 1877, p. 196 (Buenos Ayres: breeding); *Gibson, Ibis*, 1880, p. 160; *Forbes, P. Z. S.* 1881, p. 644 (anatomy); *Barrows, Auk*, i. p. 277 (1884: Concepcion); *Berlepsch, Ibis*, 1884, p. 440 (R. Orinoco); *Tacz. Orn. Pérou*, iii. p. 387 (1886); *Salvin, Ibis*, 1886 (British Guiana); *Scl. & Hudson, Argent. Orn.* ii. p. 159 (1889); *Graham Kerr, Ibis*, 1891, p. 270 (Rio Pilcomayo); *id. Ibis*, 1892, p. 149; *Holland, Ibis*, 1892, p. 210 (Argentine Republic: breeding).
Aramus carau, *Vieill. N. Dict. d'Hist. Nat.* viii. p. 300 (1817); *id. Enc. Méth.* iii. p. 1134 (1823).
Rallus gigas, *Licht. Verz. Doubl.* p. 78 (1823: San Paulo; Montevideo).
Rallus ardeoïdes, *Spix, Av. Bras.* ii. p. 72, tab. xci. (1824).
Notherodius guarauna, *Neuweid, Beitr. Naturg. Bras.* iv. pt. 2, p. 777 (1833).
Notherodius scolopaceus, *Cab. in Schomb. Reis. Guian.* iii. p. 759 (1848).
Aramus guarauna, *Léot. Ois. Trinid.* p. 489 (1866).

Adult. General colour above and below dark chocolate-brown, with a certain amount of olive-greenish or coppery reflection, especially on the quills and tail-feathers; the feathers of the back and wing-coverts with narrow margins of pale brown, these margins less distinct on the under surface of the body, which is also chocolate-brown; head and neck streaked with white, the streaks being obsolete on the crown and ear-coverts but more strongly developed on the cheeks and hinder neck, those on the latter part being very broad and forming lanceolate centres to the feathers; chin white;

throat brown, with indistinct streaks of whity brown; on the breast and lower abdomen a few obsolete streaks of white: "bill blackish on the sides, greyish green in the middle, and rather pale yellowish at the base, and dark green on the culmen; feet dark blackish grey; iris greyish brown" (*Neuwied*). Total length about 22 inches, culmen 4·1, wing 11·7, tail 5·5, tarsus 4·7, middle toe and claw 3·8.

Hab. South-eastern Brazil and Paraguay, east to the Pilcomayo and north to Guiana and Venezuela.

a. Ad. sk.	British Guiana.	Sir R. Schomburgk [C.].
b. Ad. sk.	Brazil.	Dr. J. E. Gray [P.].
c. ♀ ad. sk.	Caicara, Brazil, Nov. 16 (*J. Natterer*).	Salvin-Godman Coll.
d. Ad. st.	[Chili.]	Old Coll.

2. Aramus pictus.

Tantalus pictus, *Bartram, Trav. Florida*, p. 291 (1792).

Aramus scolopaceus, *Vieill.* (*nec Gm.*) *Gal. Ois.* ii. p. 134, pl. 252 (1825); *Bp. Amer. Orn.* iv. p. 111, pl. 26. fig. 2 (1833); *Nutt. Man.* ii. p. 68 (1834); *Audub. Orn. Biogr.* iv. p. 543 (1838, *nec* pl. ccclxxvii.); *id. B. Amer.* 8vo, v. p. 181 (1842, *nec* pl. 312); *Gosse, B. Jamaica*, p. 355 (1847); *Gray, Gen. B.* iii. App. p. 27 (1849); *Bp. Consp.* ii. p. 103 (1854, pt.); *Sallé, P. Z. S.* 1857, p. 236 (S. Domingo); *Moore, P. Z. S.* 1859, p. 64 (Omoa); *Scl. P. Z. S.* 1860, p. 290 (Babahoyo); *Maynard, B. East. N. Amer.* p. 425 (1879); *Tacz. & Berlepsch, P. Z. S.* 1885, p. 119 (Babahoyo).

Rallus giganteus, *Bp. Journ. Acad. Philad.* v. p. 31 (1825).

Notherodius guarauna (*nec Neuwied*), *Wagler, Isis*, 1829, p. 657 (Cuba).

Aramus guarauna, *D'Orbign. in Ramon de la Sagra's H. N. Cuba, Ois.* p. 256 (1839); *Brewer, Pr. Bost. Soc. Nat. Hist.* vii. p. 308 (1860: Cuba).

Notherodius scolopaceus (*nec Gm.*), *Gundl. J. f. O.* 1856, p. 426, 1862, p. 89; *id. Repert. Fisico-Nat. Cuba*, i. p. 360 (1866).

Notherodius holostictus, *Cab. J. f. O.* 1856, p. 426.

Aramus giganteus, *Baird, Cass. & Lawr. B. N. Amer.* p. 657 (1858: Florida); *Scl. P. Z. S.* 1861, p. 81 (Jamaica); *G. C. Taylor, Ibis*, 1862, p. 129; *Bryant, Proc. Bost. Soc. N. H.* x. p. 257 (1866: Porto Rico), xi. p. 97 (1867: San Domingo); *Sundev. Œfv. K. Vet.-Akad. Förh. Stockh.* 1869, p. 601 (Porto Rico); *Gray, Hand-l. B.* iii. p. 59, no. 10407 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 141 (1873); *Gundl. J. f. O.* 1875, p. 353; *id. Anal. Soc. Esp. Hist.* vii. p. 387 (1878); *A. & E. Newt. Handb. Jamaica*, p. 115 (1881); *Nutting, Proc. U. S. Nat. Mus.* vi. p. 389 (1884: Nicaragua), p. 396 (Omatepe Island); *A. O. U. Check-l.* p. 140 (1886); *Cory, Auk*, v. p. 50 (1888); *Scott, Auk*, vi. p. 152 (1889: Florida); *Salvin, Ibis*, 1889, p. 278 (Cozumel Isl.); *Cory, B. W. Ind.* p. 251 (1889); *id. Cat. West Ind. B.* p. 90 (1892); *Scott, Auk*, ix. p. 11 (1892: Jamaica); *id. t. c.* p. 212 (Florida).

Aramus holostictus, *Scl. & Salv. Ibis*, 1859, p. 227 (Belize, Omoa); *Salvin, Ibis*, 1870, p. 116 (Costa Rica).

Aramus scolopaceus, var. giganteus, *Coues, Key N. Amer. B.* p. 271 (1872).

Aramus pictus, *Coues, Proc. Philad. Acad.* 1875, p. 354; *Ridgw. Proc. U.S. Nat. Mus.* iii. pp. 202, 231 (1880); *Coues, Check-l. N. Amer. B.*

p. 108 (1882); *id. Key N. Amer. B.* 2nd ed. p. 668 (1884); *Cory, B. Haïti & San Domingo*, p. 157 (1885).

Aramus scolopaceus giganteus, *Cory, Bull. Nutt. Orn. Club*, vi. p. 155 (1881 : Haïti).

Adult male. Similar to *A. scolopaceus*, but a little larger, and having the back and the wing-coverts broadly centred with white as well as the neck; the under surface of the body is also numerously streaked with broad white centres to the feathers: "bill brown, yellow at base of lower mandible; legs brown; iris brown" (*C. J, Maynard*). Total length 27 inches, culmen 5·4, wing 12, tail 5·5, tarsus 5, middle toe and claw 4·2.

Adult female. Similar to the male. Total length 25 inches, culmen 4·3, wing 12·3, tail 5·2, tarsus 4·5, middle toe and claw 3·5.

Hab. Southern Florida, through the Greater Antilles, Western Mexico to Panama, and probably to Ecuador.

a, b. ♂ ad. sk.	Ocklawaha River, Florida, April 21 (*C. H. Merriam*: *Hensh. Coll.*).	Salvin-Godman Coll.
c. ♀ ad. sk.	Wakira River, Florida, Aug. 28 (*Hensh. Coll.*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Hernando Co., Florida, Feb. 26 (*G. Johnson*: *Hensh. Coll.*).	Salvin-Godman Coll.
e. Ad. sk.	Everglades, Florida, March.	Salvin-Godman Coll.
f, g. ♀ ad. sk.	De Soto County, Florida, March (*W. R. Dean*).	Salvin-Godman Coll.
h, i, k. ♂ ad.; *l.* ♀ ad. sk.	De Soto County, May (*W. R. D.*).	Salvin-Godman Coll.
m–p. ♂ ad.; *q, r, s.* ♀ ad. sk.	De Soto County, Nov. (*W. R. D.*).	Salvin-Godman Coll.
t. Ad. sk.	Off Bamene Island, Straits of Florida (*F. Nicholson*).	Salvin-Godman Coll.
u. Ad. sk.	Tlacotalpam, Mexico.	Salvin-Godman Coll.
v. Ad. sk.	Cozumel Island (*G. F. Gaumer*).	Salvin-Godman Coll.
w. ♂ ad. sk.	Costa Rica (*J. Carmiol*).	Salvin-Godman Coll.
x. Ad. sk.	Jamaica.	Old Coll.
y. Ad. st.	Haïti.	Old Coll.

Family II. EURYPYGIDÆ.

Palate schizognathous.

Nasals schizorhinal.

No occipital foramina, basipterygoid processes, or supraorbital impressions present.

Rectrices 12, primaries 10.

Cæca moderately long, shorter than in the Gruidæ.

Oil-gland nude.

Sternum with a notch on each side of the posterior margin.

Powder-down patches present.

None of the bare tracts of the body extending beyond the base of the neck.

Femoro-caudal muscle, accessory femoro-caudal, semitendinosus and accessory semitendinosus muscles, all present.

Bill like that of a Rail, a little longer than the head, with the nostrils horizontal and pervious, but with a slight opercular membrane above, situated in a groove which reaches nearly to the terminal fourth of the bill; the lower mandible laterally grooved.

Tibia bare for more than half its length.

Inner secondaries reaching nearly to the tips of the primaries.

Egg like that of *Scolopax rusticula*.

Nestling Plover-like and covered with down.

Young fed by the parents for some weeks after they are hatched.

[*Cf.* Seebohm, Classif. B. p. 39; Stejneger, Stand. Nat. Hist. Birds, p. 116; Sharpe, Classif. B. p. 74.]

1. EURYPYGA.

	Type.
Eurypyga, *Illiger, Prodr.* p. 257 (1811)	E. helias.
Helias, *Rafinesque, Analyse*, p. 71 (1815)	E. helias.

Range. Central America from Guatemala southwards to Ecuador, Colombia, Venezuela, Amazonia, Central Brazil, and Bolivia.

1. Eurypyga helias.

Sun-bittern.

Ardea helias, *Pall. Neue Nord. Beytr.* ii. p. 48, tab. iii. (1781).

Le Caurâl de Cayenne, *Daubent. Pl. Enl.* ix. pl. 782.

Le Caurâle ou petit Paon des Roses, *Buff. Hist. Nat. Ois.* viii. p. 169, pl. xiv. (1781).

Scolopax solaris, *Bodd. Tabl. Pl. Enl.* p. 48 (1783).

Caurale Snipe, *Lath. Gen. Syn.* iii. pt. 1, p. 156 (1785).

Eurypyga helias, *Illiger, Prodr.* p. 257 (1811); *Gray, Gen. B.* iii. p. 554 (1847); *Reichenb. Handb., Fulic.* tab. cxxiv. figs. 1219–1220 (1852); *Bp. Consp.* ii. p. 144 (1857); *E. C. Taylor, Ibis*, 1864, p. 95 (Oronoco River); *Schl. Mus. Pays-Bas*, Ralli, p. 73

(1865: Cayenne); *Scl. & Salv. P. Z. S.* 1866, p. 199 (Upper Ucayali), 1867, p. 979 (Pebas); *Pelz. Orn. Bras.* pp. 300, 455 (1871: Goyabeira, Engenho do Pari, Villa Maria, Caiçara, Engenho do Gama, Matogrosso, Rio Negro, Villa dos Manaos, Cajutuba); *Scl. & Salv. P. Z. S.* 1873, p. 308 (Rio Javarri, Cashiboya); *iid. Nomencl. Av. Neotr.* p. 141 (1873); *Berlepsch, Ibis*, 1884, p. 440 (Venezuela); *Blasius, J. f. O.* 1885, p. 417 (Bolivia); *Salvin, Ibis*, 1886, p. 177 (Bartica Grove, Camacusa); *Taczan. Orn. Pérou*, iii. p. 388 (1886); *W. L. Sclater, Ibis*, 1887, p. 317 (British Guiana); *Berlepsch, J. f. O.* 1889, p. 320 (Yurimaguas); *Allen, Bull. Amer. Mus. Nat. Hist.* ii. p. 107 (1889: Bolivia).

Helias phalænoides, *Vieill. N. Dict. d'Hist. Nat.* v. p. 423 (1816); *id. Enc. Méth.* iii. p. 1152 (1823).

Eurypyga solaris, *Gray, Hand-l. B.* iii. p. 26, no. 10096 (1871).

Adult male. General colour above brown, regularly banded with black, the light part of the back and scapulars being somewhat ashy with blackish bars or vermiculations; the upper back and mantle rather more ruddy brown; rump and upper tail-coverts broadly barred with ashy black, and more narrowly with white; the tail also similarly coloured and banded throughout, and crossed with two twin bands, the upper one chestnut and the lower one black; lesser and median wing-coverts dark ashy freckled with black, and having large ovate spots near the ends, taking the form of a subterminal band on the median series; bastard-wing bluish grey, black at the base of the feathers, and banded with black and white, the tips being narrow and white; primary-coverts golden bronze, ashy towards the ends, the outer ones blue-grey, with white bands near the tip and chestnut bands near the base; the greater coverts golden bronze crossed with dark bars, and with greyish-white tips, all the light parts being freckled with blackish; quills golden bronze freckled with dusky bars and mottlings, the tips grey with a subterminal black band; second primary with a chestnut base to the outer web, the first four primaries with a white spot on the outer web where the two ashy-grey bars cross the feathers, all but the first primary with a broad chestnut band; the inner primaries and inner secondaries with a broad chestnut base followed by a broad black band, the innermost secondaries like the back; crown of head and nape black; lores and sides of face also black as well as a second streak along the cheeks to the sides of the neck; from behind the eye a white line of feathers nearly encircling the crown; above the lores a streak of sandy buff; from the angle of the mouth a broad white streak to the sides of the neck; throat and malar region white; neck rufous with minute black cross lines, the neck in front being tawny rufous skirted on each side by a black line, and slightly mottled with minute black spots; fore neck and chest tawny rufous, blotched with black centres to the feathers, and mottled with bars and cross lines of black; centre of breast and abdomen white; sides of body, flanks, and under tail-coverts ochreous buff, barred with blackish, less distinctly on the latter; under wing-coverts and axillaries

deep ochre, with the remains of a few dusky bars on the outer edge of the wing and the lower greater coverts; the lower primary-coverts ashy, tipped with white: "upper mandible black, lower mandible yellow-ochre; feet and claws yellow-ochre; iris red" (*H. Whitely*). Total length 18 inches, culmen 2·2, wing 8·7, tail 5·7, tarsus 2·15, middle toe and claw 1·75.

Adult female. Similar to the male. Total length 17·5 inches, culmen 2·2, wing 8·7, tail 5·7, tarsus 2·1, middle toe and claw 1·75.

Hab. Central Brazil and Bolivia, throughout Amazonia to Guiana and Venezuela.

a, b. Ad. sk.	British Guiana.	Sir R. Schomburgk [C.].
c. Ad. sk.	Demerara.	Purchased.
d, e. ♂ ♀ ad. sk.	Bartica Grove, British Guiana, Oct., Dec. (*H. Whitely*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Camacusa, British Guiana, June 24 (*H. Whitely*).	Salvin-Godman Coll.
g. Ad. sk.	Cayenne.	Riocour Coll. (Type of *Helias phalænoides*, V.)
h. ♀ ad. sk.	Engenho do Gama, Brazil, Aug. 31 (*J. Natterer*).	Salvin-Godman Coll.
i, k. ♂ ♀ ad. sk.	Pebas, E. Peru, Oct., April (*J. Hauxwell*).	Salvin-Godman Coll.
l. Skeleton.	South America.	Eyton Coll.

2. Eurypyga major.

Eurypyga major, *Hartl. Syst. Verz. Mus. Bremen*, p. 108 (1844); *Gray, Gen. B.* iii. p. 554 (1847); *Bp. Consp.* ii. p. 144 (1854); *Scl. & Salv. P. Z. S.* 1864, p. 371 (Panama); *Schl. Mus. Pays-Bas*, Ralli, p. 74 (1865: Colombia); *Scl. Ibis*, 1866, p. 205 (Guatemala); *Salv. P. Z. S.* 1867, p. 161 (Santa Fé, Veragua); *Gray, Hand-l. B.* iii. p. 26, no. 10097 (1871); *Scl. & Salv. P. Z. S.* 1879, p. 546 (Antioquia); *Zeledon, Proc. U.S. Nat. Mus.* viii. p. 113 (1885: Costa Rica).

Eurypyga helias (*nec Pall.*), *Scl. & Salv. Ibis*, 1859, p. 227; *Scl. P. Z. S.* 1860, p. 73 (Pallatanga); *Lawr. Ann. Lyc. N. Y.* vii. p. 301 (1861: Panama); *Berl. & Tacz. P. Z. S.* 1885, p. 119 (Pallatanga).

Adult male. Similar to *E. helias*, but larger, and with a more uniform back, the banding being black on an ashy or olive-brown ground, without the light brown bars which are so conspicuous in *E. helias*; the throat and chest deeper coloured and more uniform rufous, numerously barred with black, but without the black blotches which are conspicuous in the allied species. The superciliary streak is not so distinct in this species as in *E. helias*. Total length 20 inches, culmen 2·6, wing 9, tail 6, tarsus 2, middle toe and claw 1·9.

Adult female. Similar to the male. Total length 17 inches, culmen 2·5, wing 9, tail 5·9, tarsus 2·25, middle toe and claw 1·9.

Hab. Central America from Guatemala to Panama, and extending to Colombia and Ecuador.

a. Ad. sk.	Guatemala.	Salvin-Godman Coll.
b. Ad. sk.	Mountains S.E. of Coban, Guatemala, Feb. (*O. Salvin*).	Salvin-Godman Coll.
c. Ad. sk.	Vera Paz, Guatemala (*O. Salvin*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Valza, Costa Rica, Feb. 24 (*J. Carmiol*).	Salvin-Godman Coll.
e, *f*. ♀ ad., juv. sk.	Cordillera de Tole, Veragua (*E. Arcé*).	Salvin-Godman Coll.
g. ♂ ad. sk.	Cordillera del Chucu, Veragua (*E. Arcé*).	Salvin-Godman Coll.
h, *i*. ♂ ♀ ad. sk.	Santa Fé, Veragua (*E. Arcé*).	Salvin-Godman Coll.
k. ♂ ad. sk.	Southern slope of Chiriqui (*E. Arcé*).	Salvin-Godman Coll.
l. ♂ ad. sk.	Nichi, U.S. Colombia (*T. K. Salmon*).	Salvin-Godman Coll.
m. Ad. st.	Colombia.	J. Gould, Esq.
n. Ad. sk.	Bogota (*G. Crowther*).	Salvin-Godman Coll.
o. Ad. sk.	Yauayacu, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
p. Ad. sk.	Rio Blanco, Ecuador (*C. Buckley*).	Salvin-Godman Coll.

Family III. MESITIDÆ.

Palate schizognathous.

Nasals schizorhinal.

Rectrices 16, primaries 10.

Oil-gland nude?

Sternum with a deep notch on each side of the posterior margin.

Five pairs of powder-down patches present—two dorsal, two ventral, and one lateral.

Bill shorter than the head, with the "nostrils long, linear, concave upturned slits, extending for more than half the length of the beak, and covered above by a well-marked membranous valvular operculum, being in this respect very unlike the ordinary form of nostril in the Rallidæ" (*W. A. Forbes*, P. Z. S. 1882, p. 268).

Tarsus much longer than middle toe and claw. Hind toe not raised above the level of the other toes.

Inner secondaries slightly exceeding the primaries in length; the wing rounded.

Nest on the ground (*Grandidier*).

Egg and nestling not yet described.

[*Cf.* Milne-Edwards and Grandidier, Hist. Nat. Madag., Ois. pp. 603–611; Forbes, P. Z. S. 1882, pp. 267–271.]

1. MESITES.

Type.

Mesites, *Geoffr. St.-Hilaire, Rev. Zool.* 1838, p. 50 .... M. variegata.

Mesitornis, *Bp.* (*ubi? teste Gray*).

Mesœnas, *Reichenb. Handb., Columb.* p. 6 (1850) .... M. variegata.

Range. Confined to Madagascar.

1. Mesites variegata.

Mesites variegata, *Geoffr. St.-Hilaire, C. R.* vi. p. 443 (1838); *id. Ann. Sci. Nat.* ix. p. 189 (1838); *id. Rev. Zool.* 1838, p. 50; *id. Mag. de Zool.* 1839, p. 10, pls. v., vi.; *Des Murs, Icon. Orn.* pl. xi. (1845); *Gray, Gen. B.* iii. p. 492, pl. 124. fig. 3 (1847); *Hartl. Ann. & Mag. N. H.* (2) ii. p. 391 (1848); *Reichenb. Syst. Nat.* tab. xxv. fig. 1 (1850); *Bp. C. R.* xlii. p. 876 (1856); *Des Murs, in Chenu's Enc. d'Hist. Nat., Ois.* vi. p. 81, figs. 79, 80 (1860); *Hartl. J. f. O.* 1860, p. 162; *id. Faun. Madagasc.* p. 67 (1861); *Pollen, Nederl. Tijdschr. Dierk.* i. p. 317 (1863); *Grandid. Rev. et Mag. Zool.* 1867, p. 360; *Gray, Hand-l. B.* i. p. 267, no. 3915 (1869); *Sundev. Forsok till Fog. Nat. Upsala*, 1872, p. 157; *Hartl. Vög. Madag.* p. 125 (1877); *E. Bartlett, P. Z. S.* 1877, p. 292, 1879, p. 772; *Forbes, P. Z. S.* 1881, p. 644; *Milne-Edwards & Grandid. H. N. Madag., Ois.* ii. p. 601, pls. 246–251 (1885).

Mesites unicolor, *Des Murs, Rev. Zool.* 1845, p. 176; *id. Iconogr. Orn.* pl. xii. (1845); *Gray, Gen. B.* iii. p. 492 (1847); *Hartl. Ann.*

& Mag. N. H. (2) ii. p. 391 (1848); *Bp. C. R.* xlii. p. 876 (1856); *Hartl. Faun. Madag.* p. 68 (1861); *id. J. f. O.* 1860, p. 162; *Pollen, Nederl. Tijdschr. Dierk.* i. p. 317 (1863); *Hartl. Vög. Madag.* p. 127 (1877).

Mesœnas variegata, *Reichenb. Handb., Columbariæ*, p. 6, tab. clxxvii. fig. 1538 (1850).

Mesœnas unicolor, *Reichenb. t. c.* p. 7, tab. clxxvii. fig. 1538 *b*.

Mesites variegata (unicolor), *Schl. & Pollen, Faun. Madag., Ois.* ii. p. 158 (1868).

Adult female. General colour above clear chestnut, the head a trifle more dusky; the wing-coverts like the back, as also the inner secondaries; bastard-wing, primary-coverts, and quills dark sepia-brown, the secondaries externally chestnut like the back; lores fulvescent; cheeks, ear-coverts, and sides of neck bright rufous, with a dusky streak above the ear-coverts extending down the sides of the neck, and bordered above in the latter quarter with a white streak; throat and breast rufous, the former more or less whitish, the breast paler than the throat and slightly mottled with dark ashy margins to some of the feathers, these becoming more frequent on the abdomen, which is also very pale rufous; sides of body dull reddish brown, the feathers with ashy bases; under tail-coverts dusky blackish, with rufous edgings to the feathers; under wing-coverts and quill-lining slaty grey. Total length 10·5 inches, culmen 0·85, wing 4·7, tail 3·7, tarsus 1·55, middle toe and claw 1·05.

The male, according to MM. Milne-Edwards and Grandidier, is maroon-rufous shaded with black, darker on the head; the cheeks are crossed by two reddish bands; below white sprinkled with black spots, the flanks rufous, barred with brown; feet lead-colour; iris brown.

Hab Eastern slope of the mountain-chain of Madagascar.

a. ♀ ad. sk. Forest of Ancaya, Madagascar. Purchased.

Family IV. RHINOCHETIDÆ.

Palate schizognathous.

Nostrils schizorhinal.

Rectrices 12; primaries 10.

Oil-gland nude.

No occipital foramina, basipterygoid processes, or supra-orbital impressions.

Sternum with no posterior notch.

Ambiens muscle present.

Femoro-caudal muscle present, but extremely thin; semitendinosus and accessory semitendinosus present. Accessory femoro-caudal absent. An after-shaft to the contour feathers.

A powder-down patch on each side of the rump.

Four bare body-tracts extending some way up the neck.

Bill about as long as the head; the nostrils situated basally in a rather broad depression, and entirely hidden by a bony sheath; no lateral groove in the mandible.

Inner secondaries exceeding the primaries in length.

Nest, egg, and young unknown.

[*Cf.* Murie, Tr. Z. S. vii. p. 465, pls. 56, 57 (1871); Seebohm, Classif. B. p. 39; Stejn. Stand. Nat. Hist. Birds, p. 118; Sharpe, Classif. B. p. 74.]

1. RHINOCHETUS.

Type.

Rhinochetus, *J. Verreaux & Des Murs, Rev. et Mag. de Zool.* 1860, p. 439 ..... R. jubatus.

Range. Confined to New Caledonia.

1. Rhinochetus jubatus.

Rhinochetus* jubatus, *Verr. et Des Murs, Rev. et Mag. de Zool.* 1860, p. 440, tab. 21; *iid. op. cit.* 1862, p. 142; *Scl. Ibis*, 1861, p. 137, note; *Bennett, t. c.* p. 136; *id. Ann. & Mag. N. H.* (3) xiii. p. 342 (1864); *id. ibid.* xiv. pp. 141, 227; *id. P. Z. S.* 1862, p. 84, 1863, pp. 385, 439; *Bartlett, P. Z. S.* 1862, p. 218, pl. 30; *Jouan, Mém. Soc. Cherb.* ix. pp. 97, 235 (1863); *Wolf, Zool. Sketches*, 2nd ser. pl. xlv. (1867); *W. K. Parker, P. Z. S.* 1868, p. 2; *Bartlett, t. c.* p. 115, pl. xii.; *Marie, Actes S. Linn. Bord.* xxvii. p. 328 (1869); *Gray, Hand-l. B.* iii. p. 26, no. 10098 (1871); *Murie, Trans. Zool. Soc.* vii. p. 465, pls. 56, 57 (1871); *Giebel, Zeitschr. ges. Naturw.* viii. p. 99 (1873); *Eyton, Osteol. Av.* ii. pt. 1, p. 18, pl. 3; *Scl. Ibis*, 1875, p. 389; *Pouget, Bull. Soc. Acclim.* (3) ii. pp. 162–171 (1875);

* The generic name has been written *Rhynochetos* and *Rhinochetos*.

Tristr. Ibis, 1879, p. 184; *Layard, Ibis*, 1882, pp. 495, 534; *Forbes, P. Z. S.* 1881, pp. 4, 644, 838, 1882, pp. 268, 270; *Wiglesw. Abhandl. k. Zool. Mus. Dresden*, no. vi. p. 59 (1892).

Adult male. General colour above light ashy grey, shaded with brown; wing-coverts like the back, the outer ones freckled with dusky brown; bastard-wing feathers light ashy grey, freckled with dusky, and tipped with white; primaries ashy grey, with dusky mottlings and freckles and obscure bands of dark ashy, the bands near the base of the quills black; the outer primaries with regular black bands, mixed with chestnut near the base of the quills, which are banded with white near their ends and also tipped with white; tail dark ashy grey; head, sides of face, and neck ashy grey, with a large crest of drooping plumes; under surface of body pale ochraceous isabelline, ashy grey on the fore neck and chest; under wing-coverts ashy grey barred with white, and resembling the quill-lining: "bill, legs, and feet reddish-orange colour" (*G. Bennett*). Total length 22 inches, culmen 2·4, wing about 10, tail 8·2, tarsus 4·1, middle toe and claw 2·3.

Young. Differs from the adult in being more rufous, the back, wing-coverts, and inner secondaries being chestnut barred with black; sides of the body, flanks, and under tail-coverts banded with dusky brown.

Hab. New Caledonia.

a. Ad. st.	New Caledonia.	Purchased.
b. Imm. st.	New Caledonia.	J. Gould, Esq.
c. Skeleton.	New Caledonia.	Purchased.

Family V. GRUIDÆ.

Palate schizognathous.

Nostrils schizorhinal.

Rectrices 12.

Cæca between five and six inches long.

Oil-gland tufted.

Sternum with no notches on the posterior margin, but perforated anteriorly to receive the convolutions of the trachea.

Occipital foramina present; basipterygoid processes absent; supra-orbital impressions peculiar—"the nasal glands occupying the truncated edge of the cranium above the orbits, hardly appearing on its upper surface" (*Forbes*, P. Z. S. 1881, p. 643).

No powder-down patches.

Ambiens muscle present. Femoro-caudal and accessory femoro-caudal muscles present (absent in *Balearica*). Semitendinosus and accessory semitendinosus muscles present in all.

Bill equal to or rather longer than the head, the nasal depression extending rather more than half the length of the maxilla, the nostril shut in by a large posterior membrane; lower mandible slightly grooved.

Inner secondaries rather longer than primaries, and generally composed of drooping plumes with dissociated webs.

Nest built on ground or in shallow water.

Eggs double-spotted, light olive-brown or grey with reddish-brown spots.

Nestling covered with down and able to run in a few hours.

[*Cf.* Seebohm, Classif. B. p. 39; Stejn. Stand. Nat. Hist. Birds, p. 123; Sharpe, Classif. B. p. 74.]

Key to the Genera.

A. Without straw-like bristles on the nape; nostrils linear.

a. Crown of head bare, with more or less granulation on the hinder crown, but the ear-coverts feathered like the hinder cheeks and sides of neck; inner secondaries slightly falcate and pointed, not much produced, generally with drooping plumes, consisting of decomposed feathers.

a'. The cheeks feathered like the ear-coverts. 1. GRUS, p. 249.

b'. Fore part of cheeks bare, like the top of the head.

a''. Entire crown bare to the nape; forehead, lores, and whole of cheeks bare, covered with black bristles; region below and behind the eye feathered . . 2. LIMNOGERANUS, [p. 259.

b''. Fore part of crown bare, feathers of the neck ascending to the hinder crown; lores and region of the eye bare; hinder cheeks feathered ..... 3. SARCOGERANUS, [p. 260.

b. Ear-coverts represented by a patch of feathers; the rest of the sides of the face bare; inner secondaries pointed and visibly produced beyond the primaries; crown of head bare, with coarse granulations on the hind neck ..... [p. 262. 4. ANTIGONE,

c. Ear-coverts feathered, like the cheeks; forehead, region above and below the eye, and sides of face bare; hind neck feathered, the feathers reaching over the crown in a triangle to the level of the eye ..... [p. 266. 5. PSEUDOGERANUS,

d. Ear-coverts feathered, like the crown and sides of face; fore part of cheeks and base of bill with warty caruncles; two feathered lappets on each side of the centre of the throat; inner secondaries enormously produced and consisting of lanceolate feathers, and extending far beyond the primaries; feathers of the lower throat elongated as in Herons ..... [p. 267. 6. BUGERANUS,

e. Ear-coverts feathered and consisting of dense plumes, like those of the nape; the head entirely covered with close-set feathers; inner secondaries immensely lengthened; feathers of the lower throat as in the preceding genus ..... [p. 268. 7. TETRAPTERYX,

f. Ear-coverts feathered and ornamented with a long tuft of silky plumes; crown of head entirely feathered; plumes of the lower throat elongated and lanceolate; inner secondaries lanceolate and moderately developed ..... [p. 269. 8. ANTHROPOIDES,

B. With a large tuft of straw-like bristles on the nape; nostrils oblique, oval, situated in the anterior portion of the bill; throat and sides of face bare; neck with elongated lanceolate feathers ..... [p. 272. 9. BALEARICA,

1. GRUS.

	Type.
Grus, *Pallas, Miscell. Zool.* fasc. iv. pp. 1–9 (1767)	G. grus.
Megalornis, *Gray, List Gen. B.* 1841, p. 85	G. grus.

Range. The greater part of Europe and Northern Asia, extending to N.E. Africa and Lower Egypt, N.W. India, and the Yangtze basin in China. The whole of North America to Mexico and Cuba.

Key to the Species.

a. Tail grey like the back, or grey with a black band at the end.

a'. Throat slaty grey, like the cheeks; a broad band of white from behind the eye down the sides of the neck; greater wing-coverts with black tips, or with black on the inner webs.

a''. General colour dark ashy grey, including the inner secondaries ..... *grus*, p. 250.
b''. General colour pearly grey, the inner secondaries inclining to white ..... *lilfordi*, p. 252.
b'. Throat light ashy grey, like the cheeks; no white on the sides of the neck; greater wing-coverts ashy, with rust-coloured edgings, but no black on the inner webs; hinder crown and nape dark sandy colour . *mexicana* juv., p. 254.
c'. Throat white; crown bare, red, and covered with papillæ; hinder crown, nape, and neck light grey.
c''. Larger: tarsus from 9·9 to 10·2 ..... *mexicana*, p. 254.
d''. Smaller: tarsus from 6·7 to 8·5 ..... *canadensis*, p. 256.
d'. Throat white like the head and the greater part of the sides of the neck, as well as the hinder neck; fore part of crown black .... *monachus*, p. 257.
b. Tail blackish; throat and neck blackish..... *nigricollis*, p. 258.
c. Tail pure white, like the back and underparts; secondaries black; throat, sides of face, and neck dark slaty grey; ear-coverts and hind neck white ..... *japonensis*, p. 258.

1. Grus grus.

The Crane, *Albin, Nat. Hist. B.* ii. p. 60, pl. 65 (1738).
La Grue, *Briss. Orn.* v. p. 374, pl. xxxiii. (1760); *Daubent. Pl. Enl.* viii. pl. 769; *Buff. Hist. Nat. Ois.* vii. p. 287, pl. 14 (1780).
Ardea grus, *Linn. Syst. Nat.* i. p. 234 (1766); *Gm. Syst. Nat.* i. p. 620 (1788).
Common Crane, *Lath. Gen. Syn.* iii. pt. i. p. 40 (1785); *Yarr. Brit. B.* ii. p. 437 (1843).
Grus communis, *Bechst. Naturg. Deutsch.* iii. p. 60 (1793); *id. Orn. Taschenb.* ii. p. 271 (1803); *Dresser, B. Eur.* vii. p. 337, pl. 505 (1873); *Irby, Orn. Gibr.* p. 179 (1875); *Danf. & Harvie Brown, Ibis*, 1875, p. 424 (Transylvania); *Blanf. East. Persia*, ii. p. 286 (1876); *Forbes, P. Z. S.* 1881, p. 644 (anatomy); *Gigl. Ibis*, 1881, p. 212 (breeding near Venice): *Tegetm. ed. Blyth, Monogr. Cranes*, p. 59 (1881); *B. O. U. List Brit. B.* p. 152 (1883); *Saunders, ed. Yarr. Brit. B.* iii. p. 178 (1883); *id. Ibis*, 1884, p. 388 (E. Pyrenees); *Tristr. Faun. & Flor. Palest.* p. 126 (1884); *Bogd. Consp. Av. Imp. Ross.* p. 106 (1884); *Reid, Ibis*, 1885, p. 252 (Morocco); *Gigl. Avif. Ital.* p. 360 (1886); *Salvad. Elench. Ucc. Ital.* p. 239 (1887); *Tait, Ibis*, 1887, p. 383 (Portugal); *Regalia, Proc. Verb. Soc. Toscana Sci. Nat.* 1888, p. 86; *Reichen. Syst. Verz. Vög. Deutschl.* p. 44 (1889); *Saunders, Man. Brit. B.* p. 507 (1889); *Gigl. Avif. Ital.*, 1st Resoc. p. 555 (1889), 2nd Resoc. p. 652 (1890), 3rd Resoc. p. 512 (1891).
Grus cinerea, *Meyer & Wolf, Taschenb.* ii. p. 350 (1810); *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 556 (1817); *Temm. Man. d'Orn.* p. 557 (1820); *Roux, Orn. Provenç.* pl. 326 (1825); *Werner, Atlas, Coureurs*, pl. 17 (1828); *Brehm, Vög. Deutschl.* p. 570 (1831); *Gould, B. Eur.* iv. pl. 270 (1837); *Naum. Vög. Deutschl.* ix. p. 345, pl. 231 (1838); *Bp. Comp. List B. Eur. & N. Amer.* p. 46 (1838); *Crespon, Orn. Gard*, p. 374 (1840); *Keys. u. Blas. Wirb. Eur.* p. lxix (1840); *Selys-Longch. Faune Belge*, p. 134

(1842); *Schl. Rev. Crit.* p. c (1844); *Muhle, Orn. Griechenl.* p. 93 (1844); *Gray, List Gralla Brit. Mus.* p. 74 (1844); *id. Gen. B.* iii. p. 552 (1845); *Hewits. Eggs Br. B.* ii. pl. lxiii. (1846); *Thomps. B. Irel.* ii. p. 131 (1850); *Macgill. Hist. Brit. B.* iv. p. 20 (1852); *Kjærb. Orn. Dan.* pl. xxxiii *a.* fig. 2 (1852); *Reichenb. Handb., Fulic.* tab. cxxviii. figs. 1230–1233 (1852); *Schl. Vog. Nederl. Ind.* pls. 258, 259 (1854); *Bp. Consp.* ii. p. 97 (1854); *Jaub. et Barth.-Lapomm. Rich. Orn.* p. 351 (1859); *Tristr. Ibis*, 1859, p. 36 (Palestine); *E. C. Taylor, t. c.* p. 50; *Wolley, t. c.* p. 191 (Lapland: breeding); *Salvin, t. c.* p. 355 (Tunis: winter); *Linderm. Vög. Griechenl.* p. 131 (1860); *Tristr. Ibis*, 1860, p. 76 (Algeria); *Powys, t. c.* p. 348 (Corfu); *Schl. Dier. Nederl. Vog.* pl. xxvi. figs. 10, 10 *a* (1861); *Sundev. Svensk. Fogl.* pl. 47. fig. 3; *Meves, J. f. O.* 1862, p. 132; *Gray, List Br. B.* p. 144 (1863); *Adams, Ibis*, 1864, p. 30 (Lower Egypt); *Wright, t. c.* p. 142 (Malta: migrant); *Newton, Ooth. Wolley.* pl. E (1864); *Schl. Mus. Pays-Bas*, Ralli, p. 1 (1865); *Gigl. Ibis*, 1865, p. 59 (Pisa: spring); *Saxby, Zool.* 1865, pp. 9767–72; *Drake, Ibis*, 1867, p. 429 (Tangier); *Degland & Gerbe, Orn. Eur.* ii. p. 274 (1867); *More, Ibis*, 1867, p. 433; *Loche, Expl. Sci. Algér., Ois.* ii. p. 118 (1867); *Tristr. Ibis*, 1868, p. 324 (Palestine); *Smith, t. c.* p. 453 (Portugal); *Quistorp, J. f. O.* 1868, p. 259 (Pomerania); *Borggr. Vogelf. Norddeutschl.* p. 108 (1869); *Doderl. Avif. Sicil.* p. 206 (1869); *Droste, Vogelw. Borkum*, p. 251 (1869); *Saunders, Ibis*, 1869, p. 174; *Fritsch, Vög. Eur.* tab. 44. fig. 4 (1870); *Stevens, Tr. Norf. Soc.* 1870, p. 60; *Wyatt, Ibis*, 1870, p. 17 (Sinai); *Elwes & Buckley, t. c.* p. 233 (Turkey, Macedonia: breeding); *Salvad. Faun. Ital., Ucc.* pp. 238, 320 (1871); *Gurney, Ibis*, 1871, p. 297 (Algeria); *Saunders, t. c.* p. 389 (S. Spain: breeding); *R. Gray, B. West Scotl.* p. 270 (1871); *Harting, Handb. Brit. B.* p. 54 (1872); *Shelley, B. Egypt*, p. 263 (1872); *Brooke, Ibis*, 1873, p. 340 (Sardinia: migrant); *Gould, B. Gt. Br.* iv. pl. 19 (1873); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 250 (1873: wintering in Steppes of the Atbara in Abyssinia, on the Sobat, and in Kordofan); *Fallon, Ois. Belg.* p. 156 (1875); *Scl. & E. C. Taylor, Ibis*, 1876, p. 60 (Danube); *Seeb. & Harvie-Brown, t. c.* p. 311 (Lower Petchora); *Radakoff, Handatl. Russ. Hist. Vög.* pl. (1876); *Tacz. Bull. Soc. Zool. France*, ii. p. 154 (1877: Poland, March to Oct.); *Danf. Ibis*, 1880, p. 92 (Asia Minor); *Forbes, P. Z. S.* 1882, p. 352; *Seeb. Ibis*, 1882, p. 226 (Kirghiz Steppes); *id. Ibis*, 1882, p. 31 (Caucasus); *id. Hist. Brit. B.* ii. p. 570, pl. 36 (1884); *Radde, Orn. Cauc.* p. 391 (1884); *Lilford, Ibis*, 1889, p. 337 (Cyprus: April); *Lydekker, Ibis*, 1891, p. 393 (formerly in Ireland); *Gätke, Vogelw. Helgol.* p. 466 (1891); *Madarász, Erlaut. Austr. Ungar. Vög.* p. 110 (1891); *Reiser, Vogels. Landesm. Sarajevo*, p. 108 (1891); *Frivaldsky, Av. Hung.* p. 126 (1891); *Seeb. Ibis*, 1892, p. 21 (Heligoland).

Grus vulgaris, *Pall. Zoogr. Rosso-Asiat.* ii. p. 106 (1811, pt.); *Nordm. in Démid. Voy. Russ. mérid.* iii. p. 266 (1840: Black Sea: migrant).

Grus canorus, *Forster, Syn. Cat. Brit. B.* p. 58 (1817).

Grus cineracea, *Brehm, Vög. Deutschl.* p. 571 (1831).

Megalornis grus, *Gray, List Gen. B.* 1841, p. 85.

Grus nostras, *Olphe-Galliard, Contr. Faun. Orn. Eur. Occ.* fasc. xv. p. 33 (1891).

Grus grus, *Brusina, Motr.* (*Orn. Croatia*), p. 84 (1890); *id. Orn. Jahrb.* ii. p. 25 (1891); *Hartert, Kat. Vogels. Mus. Senckenb.* p. 209 (1891); *id. Ibis*, 1892, p. 153 (E. Prussia: breeds).

Adult male in winter plumage. General colour above dark ashy grey, with obsolete isabelline tips to the feathers; wing-coverts like the back, the greater series clearer grey and somewhat blackish towards the ends; bastard-wing black, followed by a row of grey coverts, preceding the primary-coverts, which are black like the primaries, and somewhat shaded with grey near the base; secondaries for the most part dark grey, more or less blackish on the outer webs and tips, the inner web lighter grey; innermost secondaries composed of lanceolate plumes which are slaty grey with black tips; upper tail-coverts grey; tail-feathers also grey, blackish towards the ends; crown of head and lores bare, only covered by blackish hair-like bristles; nape with a triangular patch of dark slate-colour; hind neck white, also the sides of the neck, as well as the sides of the head and the ear-coverts as far as the eye; feathers below the eye, sides of face, and throat dark slate-colour; remainder of under surface from the lower throat downwards ashy grey, including the under wing-coverts and the hypopteral plumes: "bill greyish green, a little red near the base; eyelid reddish brown" (*J. F. Naumann*); "iris reddish; legs blackish grey" (*H. E. Dresser*). Total length about 36 inches, culmen 4·7, wing 22, tail 8, tarsus 9·5, middle toe and claw 4·2.

The young birds when about a foot high are still covered with down, through which the grey plumage of the adult makes its appearance; the head is pale ochreous buff. (*Mus. Lugd.*)

The full-grown young bird is very similar to the adult, but has the feathers edged with fulvous; the crown and nape are rust-coloured. (*Mus. Lugd.*)

Nestling covered with yellowish-buff down, very dense in texture.

Hab. The greater part of Europe, wintering in Northern and North-eastern Africa. How far to the eastward this species ranges I am unable to say, as I have seen no eastern specimens.

a, *b*. Ad. st.	Europe.	Purchased.
c. ♂ imm. sk.	Unst, Shetland, July 18 (*H. L. Saxby & T. Edmonston*).	Gurney Coll.
d. Ad. sk.	Norway.	Salvin-Godman Coll.
e. ♀ ad. sk.	South Spain.	Lord Lilford [P.].

2. Grus lilfordi.

Grus vulgaris, pt., *Pall. Zoogr. Rosso-Asiat.* p. 106 (1811).

Grus cinerea (*nec Meyer & Wolf*), *Jerd. Madr. Journ.* xi. p. 194 (1840); *Blyth, Cat. B. Mus. As. Soc.* p. 274 (1849); *Schrenck, Reis. Amurl.* p. 408 (1859); *Irby, Ibis*, 1861, p. 243 (Oudh, winter); *Swinh. t. c.* p. 405 (Swatow, winter); *Radde, Reis. Sibir., Vög.* p. 317 (1863: Tarei-Nor, Kamardaban Mts., Kultuk, Bureja Mts.); *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 71 (1863); *Jerd. B. Ind.* ii. p. 664 (1864); *Dyb. & Parvex, J. f. O.* 1868, p. 337 (Dauria); *Swinh. Ibis*, 1868, p. 353; *id. Ibis*, 1870, pp. 79, 362 (Hainan, March); *id. P. Z. S.* 1871, p. 402 (Pekin; S. China in winter); *Blyth, Ibis*, 1873, p. 81; *Lloyd, t. c.* p. 417 (Kathiawar);

Severtz. Turkest. Jevotn. p. 68 (1873 : breeding); *Hume, Str. F.* i. p. 235 (1873 : Sind, Punjab); *Adam, t. c.* p. 395 (Sambhur); *Tacz. J. f. O.* 1873, p. 100 (Kultuk), 1874, p. 336; *Ball, Str. F.* ii. p. 430 (1874 : Damuda, Mahanadi); *Tacz. Bull. Soc. Zool. France*, i. p. 246 (1876); *Butler, Str. F.* iv. p. 14 (1876: Guzerat); *id. Str. F.* v. p. 232 (1877); *Fairb. t. c.* p. 263 (Ahmednuggur); *Prjev. in Rowley's Orn. Misc.* ii. p. 436 (1877 : Kansu); *David & Oust. Ois. Chine*, p. 434 (1877 : winters in China); *Finsch, Ibis*, 1877, p. 50 (River Ob; Alakul); *Blakist. & Pryer, Ibis*, 1878, p. 224; *Ball, Str. F.* vii. p. 227 (Manbhum); *Finsch, Verh. z.-b. Ges. Wien*, xxix. p. 247 (1879); *Seeb. Ibis*, 1879, p. 28 (Japan), p. 49 (Toora, River Ob); *Hume, Str. F.* viii. p. 112 (1879); *Murray, Vertebr. Faun. Sind*, p. 237 (1884); *Styan, Ibis*, 1891, pp. 329, 502 (Lower Yangtze; winter); *De la Touche, Ibis*, 1892, p. 495 (Swatow, winter).

Grus longirostris, *Blyth* (*nec Temm. & Schl.*), *B. Burm.* p. 157 (1875).

Grus communis (*nec Bechst.*), *Dresser, Ibis*, 1876, p. 324; *Davids. & Wenden, Str. F.* vii. p. 88 (1878: Deccan); *Hume, Str. F.* viii. p. 112 (1879); *Scully, t. c.* p. 352 (Nepal Terai; Hetoura Doon); *Butler, Cat. B. Sind etc.* p. 60 (1879); *id. Cat. B. S. Bomb. Pres.* p. 75 (1880); *Hume & Marsh. Game B. Ind.* iii. p. 21, pl. 3 (1880); *Butler, Str. F.* ix. p. 427 (1881 : Deccan); *Reid, Str. F.* x. p. 68 (1881: Lucknow); *Davidson, t. c.* p. 320 (1882: Khandeish); *Simson, Ibis*, 1882, p. 93 (Dacca); *Severtz. Ibis*, 1883, p. 80; *Prjev. t. c.* p. 243 (W. Tibet); *Blakist. Amended List B. Japan*, p. 24 (1884: Hondo); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 49 (1888: Tschinas).

Grus cinerea, β. cineracea (*nec Brehm*), *Severtz. J. f. O.* 1875, p. 182.

Grus communis, var. orientalis (*nec Frankl.*), *Tegetm. ed. Blyth, Monogr. Cranes*, p. 59 (1881).

Grus grus orientalis (*nec Frankl.*), *Stejn. Bull. U.S. Nat. Mus.* xxix. p. 317 (1885: Kamtschatka and Bering Isl.); *id. Proc. U.S. Nat. Mus.* x. p. 134 (1887 : Bering Isl.)

Adult male. Similar to *G. cinerea*, but everywhere much paler, the ornamental secondaries being light ashy grey instead of dark slate-colour as in *G. cinerea* : "only a narrow band of red skin crossing the vertex" (*E. Blyth*). Total length about 36 inches, culmen 4·7, wing 22, tail 8, tarsus 9·5, middle toe and claw 4·2.

Full-grown young. Light ashy grey, but the upper surface much obscured by isabelline tips to the feathers; the inner secondaries not drooping as in the adult, but slightly falcate; the head and neck rusty coloured; the throat paler rust-colour and the neck below paler with a slight ashy tinge; the crown of the head sparsely feathered, but not so bare as in the adult bird. The isabelline margins to the feathers are very conspicuous in the young birds; they are also seen in birds killed in the winter, but whether they are indicative of winter plumage in the adults, or are remains of the preceding immature plumage, I am not able to say.

Young half-grown. Similar in colour of plumage to the adult, but with rufous tips to the feathers, the head rufescent as well as the sides of the face, the throat and neck covered with a downy plumage of a reddish colour.

Hab. Eastern Siberia, wintering in the Yangtze basin, probably

extending westwards to Turkestan and the River Ob, and wintering in North-western India.

a. Juv. sk.	Pettor, River Ob, Sept. 6 (*Dr. O. Finsch*).	Geogr. Society, Bremen.
b. ♂ ad. sk.	River Jhelum, near Jelalpur, Nov. 21 (*A. O. H.*).	Hume Coll.
c. ♂ ad. sk.	Bhuttoa, Hissar, Punjab, Dec. 13. (*A. O. H.*).	Hume Coll.
d. Ad. sk.	Hissar, Oct.	Hume Coll.
e–h. Ad., *i*. Juv. sk.	Sirsa distr., Punjab, Nov. (*A. O. H.*).	Hume Coll.
k–o. Ad. sk.	Etawah, Dec.	Hume Coll.
p–r. Ad. et imm. sk.	Nepal.	Hodgson Coll.
s. Imm. sk.	Nepal (*B. H. Hodgson*).	India Museum.
t. Ad. sk.	Bhotan (*Pemberton*).	India Museum.
u. Imm. sk.	Swatow, China (*R. Swinhoe*).	Seebohm Coll.

3. Grus mexicana *.

La Grue de Mexique, *Briss. Orn.* v. p. 380 (1760).

Ardea (Grus) mexicana, *P. L. S. Müll. Syst. Nat. Suppl.* p. 110 (1776).

Grus pratensis, *Bartr. Trav. Florida*, pp. 144, 218 (1791); *Coues, Check-l. N. Amer. B.* p. 108 (1882); *id. Key N. Amer. B.* 2nd ed. p. 667 (1884).

Grus poliophæa, *Wagler, Syst. Av.*, Grus, sp. 7 (1827); *Lembeye, Av. Cuba*, p. 80 (1850); *Brewer, Proc. Bost. Soc. Nat. Hist.* vii. p. 308 (1860: Cuba).

Grus americana, juv., *Audub. B. Amer.* pl. 261; *id. Orn. Biogr.* iii. p. 441 (1835); *id. B. Amer.* 8vo, v. p. 188, pl. 314 (1842).

Grus americana, pt., *Gray, List Grallæ Brit. Mus.* p. 74 (1844); *id. Gen. B.* iii. p. 552 (1845).

Grus cinerea longirostris, *Temm. & Schl. Faun. Jap.* p. 117, pl. 72 (1850); *Sharpe, Bull. Brit. Orn. Club*, no. viii. p. xliii (April, 1893).

Grus longirostris, *Bp. Consp. Av.* ii. p. 98 (1854).

Grus canadensis, *Gundl. (nec L.), J. f. O.* 1856, p. 339; *Baird, Cassin, & Lawr. B. N. Amer.* p. 655 (1858); *Brewer, Proc. Bost. Soc.* vii. p. 308 (1860); *G. C. Taylor, Ibis*, 1862, p. 129 (Florida); *Gundl. J. f. O.* 1862, p. 81; *id. Repert. Fis. Nat. Cuba*, i. p. 347 (1866); *id. J. f. O.* 1875, p. 293; *Ridgw. Rep. Surv. 100th Par.* p. 611 (1877: Carson Valley); *Maym. B. East. N. Am.* p. 422 (1879); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 202 (1880).

Grus mexicana, *Ridgw. Pr. U.S. Nat. Mus.* vii. p. 356 (1885); *Everm. Auk*, iii. p. 91 (1886: Ventura Co.); *Anthony, t. c.* p. 164 (Washington Co., Oregon); *A. O. U. Check-l. N. Am. B.* p. 139 (1886); *Ridgw. Man. N. Am. B.* p. 135 (1887); *Beckh. Pr. U.S. Nat. Mus.* x. p. 637 (1887: Texas); *Cooper, Auk*, iv. p. 88 (1887: Ventura Co., Cal.); *Lloyd, t. c.* p. 185 (Western Texas); *Merrill, Auk*, v. p. 144 (1888: Fort Klamath); *Everm. t. c.* p. 348 (Indiana); *Scott, Auk*, vi. p. 152 (1889: Florida); *Pindar, t. c.*

* It seems to me to be somewhat doubtful whether Brisson's bird was the one usually called *Grus mexicana*; but as the latter name has been generally adopted by modern authors, it is better to retain it.

p. 312 (Kentucky); *Cory, B. West Ind.* p. 251 (1889: accidental in Cuba); *Mearns, Auk*, vii. p. 51 (1890: Arizona); *Thomps. Pr. U.S. Nat. Mus.* xiii. p. 491 (1890: Manitoba); *Hart Merriam, N. Am. Faun.* no. 3, p. 88 (1890: Mormon Lake), v. p. 90 (1891: Idaho); *Brewst. & Chapm. Auk*, viii. p. 137 (Suwanee River); *Wayne, t. c.* p. 308 (S. Carolina); *Lawr. Auk*, ix. p. 42 (1892: Gray's Harbour, Washington); *Scott, t. c.* p. 312 (Florida); *Attwater, t. c.* p. 232 (San Antonio); *Cory, Cat. West Ind. B.* p. 90 (1892).

Grus schlegelii, *Blyth, Field*, vol. xlii. p. 419 (1873); *Tegetm. ed. Blyth, Mon. Cranes*, p. 78 (1881).

Grus canadensis, *β.* mexicana, *Baird, Brewer, & Ridgw. Water-B. N. Am.* i. p. 407 (1884).

Grus cinerea, *Seebohm* (*nec Meyer & Wolf*), *B. Jap. Emp.* p. 348 (1890).

Adult male. General colour above slaty grey; the wing-coverts rather lighter than the back, and washed with rusty brown on the margins of the feathers, the coverts with dusky or blackish shafts; lower back, rump, and upper tail-coverts rather lighter grey than the back; bastard-wing and primary-coverts ashy grey, the latter somewhat darker towards their ends; primaries blackish with yellowish-white shafts, and somewhat dusted with grey on their outer aspect; secondaries also light ashy, the inner ones slightly falcate and pointed, with a few decomposed feathers; tail-feathers slaty grey; crown of head bare, the hinder crown, nape, and hind neck slaty blue, somewhat lighter on the ear-coverts and on the lower throat and fore neck; feathers below the eye, cheeks, and throat white; remainder of the under surface ashy grey, including the under wing-coverts and hypopteral plumes, many of the feathers of the under surface rather browner and with pale pearly grey margins: "bill blackish, paler at tip; entire pileum, including the lores, covered with a bare granulated skin (reddish in life) interspersed with fine blackish hair; the posterior margin of this bare skin divided medially on the occiput by an angular projection of the feathers on the upper part of the nape; feet blackish; iris crimson" (*Baird, Brewer, & Ridgway*). Total length about 40 inches, culmen 6·2, wing 21·5, tail 7·2, tarsus 9·5, middle toe and claw 4.

Young. Similar to the adult, but the whole of the plumage obscured by rust-colour, the head covered with down; forehead, sides of face, and throat covered with greyish-white down.

Hab. "United States, chiefly from the Mississippi Valley, west to the Pacific coast, south into Mexico, and eastwards along the Gulf coast of Florida and Georgia" (*Ridgway*).

a. Ad. sk.	North America.	Old Coll.
b. Juv. sk.	North America.	J. J. Audubon, Esq. [C.].
c. Ad. sk.	Orcas Island, Vancouver, June.	Dr. Lyall [P.].
d–i. ♂ ♀ ad. et juv. sk.	Tarpon Springs, Florida, April to Oct. (*W. E. D. Scott*).	Salvin-Godman Coll.
k–l. Pull. sk.	De Soto County, Florida, May (*W. R. Dean*).	Salvin-Godman Coll.

4. Grus canadensis.

The Brown and Ash-coloured Crane, *Edw. Nat. Hist. B.* iii. p. 133, pl. 133 (1750: Hudson's Bay).

La Grue de la Baye de Hudson, *Briss. Orn.* v. p. 385 (1760).

Ardea canadensis, *Linn. Syst. Nat.* i. p. 234 (1766); *Gm. Syst. Nat.* i. p. 620 (1788).

La Grue brune, *Buff. Hist. Nat. Ois.* vii. p. 310 (1780).

Brown Crane, *Lath. Gen. Syn.* iii. pt. i. p. 43 (1785); *Nutt. Man.* ii. p. 38 (1834).

Grus fusca, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 558 (1817, pt.).

Grus canadensis, *Temm. Man. d'Orn.* p. c (1820); *Sabine in Frankl. Journ.* p. 685 (1823); *Richards. in Parry's 2nd Voy.* p. 353 (1824); *Swains. & Richards. Faun. Bor.-Am.* p. 373 (1831); *Bonap. Consp. Av.* ii. p. 98 (1854); *Walker, Ibis*, 1860, p. 167 (Pondo Bay; lat. 72° W. Coast of Baffin's Bay); *Blakist. Ibis*, 1863, p. 128 (Saskatchewan; breeding); *Dresser, Ibis*, 1865, p. 315 (Texas); *Schl. Mus. Pays-Bas*, Ralli, p. 2 (1865, pt.); *Coues, Ibis*, 1866, p. 263 (Arizona); *Brown, Ibis*, 1868, p. 424 (Vancouver Isl.); *Dall & Bann. Tr. Chic. Acad.* i. p. 289 (1869: S. Michaels); *Gray, Hand-l. B.* iii. p. 24, no. 10083 (1871); *Coues, Key N. Am. B.* p. 271 (1872); *Tacz. J. f. O.* 1873, p. 112 (N. of Yakutsk); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 311 (1874: Mazatlan, Sept. to March); *Coues, B. N.-West*, p. 532 (1874); *Hensh. Rep. Zool. Expl.* 100*th Merid.* p. 467 (1875); *Coues, Bull. U.S. Geol. Surv.* iv. p. 646 (1878: Pembina, breeds); *Merrill, Pr. U.S. Nat. Mus.* i. p. 165 (1878: S. Texas); *Adams, Ibis*, 1878, p. 437 (Michaelaski, breeding); *Tegetm. ed. Blyth, Mon. Cranes*, p. 72 (1881); *Coues, Check-l. N. Am. B.* p. 108 (1882); *Bean, Pr. U.S. Nat. Mus.* v. p. 166 (1882: Diomede Isl.; Choris Peninsula), p. 173 (Escholtz Bay); *Baird, Brewer, & Ridgw. Water-B. N. Am.* i. p. 407 (1884); *Coues, Key N. Am. B.* 2nd ed. p. 667 (1884); *Drew, Auk*, ii. p. 18 (1885: Colorado); *Murdoch, t. c.* p. 63 (Point Barrow, June); *Beckh. t. c.* p. 144 (Colorado); *Turner, t. c.* p. 157 (Nearer Isl., Alaska); *Murdoch, t. c.* p. 201 (Point Barrow); *Agersb. t. c.* p. 287 (S.E. Dakota, breeding); *Murdoch, Rep. Polar Exped. Point Barrow*, p. 116 (1885); *A. O. U. Check-l.* p. 189 (1886); *Turner, Contr. Nat. Alaska*, p. 145 (1886); *Ridgw. Man. N. Am. B.* p. 135 (1887); *Nelson, Rep. Nat. Hist. Alaska*, p. 94 (1887; breeding): *Towns. Auk*, iv. p. 12 (1887: Alaska); *Drew, t. c.* p. 264 (Colorado); *Merrill, Auk*, v. p. 144 (1888: Ft. Klamath); *Warren, B. Penns.* App. p. 234 (1888); *Goss, Auk*, vi. p. 126 (1888: Kansas, migrant); *Chapm. Bull. Am. Mus. Nat. Hist.* iii. p. 131 (1890: British Columbia); *Brewst. Auk*, vii. p. 89 (1890: Rhode Isl., Oct.); *Mcfarl. Pr. U.S. Nat. Mus.* xiv. p. 425 (1891).

Grus americana, *Gray (nec L.), List Grall. Brit. Mus.* p. 74 (1844, pt.); *id. Gen. B.* iii. p. 552 (1845).

Grus fraterculus, *Cassin in Baird, Cassin, & Lawr. B. N. Am.* p. 596 (1858, =juv.); *Gray, Hand-l. B.* iii. p. 24, no. 10004 (1871); *Tacz. Bull. Soc. Zool. France*, i. p. 246 (1876: Cape Tschukoss); *Allen, Bull. Nutt. Orn. Club*, v. p. 123 (1880); *Tegetm. ed. Blyth, Mon. Cranes*, p. 78 (1881); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 202 (1881); *Boucard, P. Z. S.* 1883, p. 461 (Tiziman, Yucatan, March); *Bogd. Consp. Av. Imp. Ross.* p. 107 (1884).

Adult. Similar to *G. mexicana*, but smaller, and with a decidedly shorter tarsus. Total length about 35 inches, culmen 4·2, wing about 18, tail 7·5, tarsus 7·9, middle toe and claw 3·3.

According to Mr. Ridgway the tarsus is 6·7–8·44 inches in length, as against 9·9–10·65 inches in *G. mexicana*.

Hab. Northern North America, from Hudson's Bay to Alaska, migrating south through the western United States, east to the Rocky Mountains to Mexico (*Ridgway*).

a. Ad. sk.	Hudson's Bay.	Sir G. Back [P.].
b–f. ♂ ♀ ad. sk.	St. Michaels, Alaska, May, June (*E. W. Nelson*: *Hensh. Coll.*).	Salvin-Godman Coll.
g. Imm. sk.	San Antonio, Texas (*H. E. Dresser*).	Salvin-Godman Coll.
h. ♂ ad.; *i*. ♂ imm. sk.	Corpus Christi, Texas, Nov., Dec. (*F. B. Armstrong*).	Salvin-Godman Coll.

5. Grus monachus.

Grus monachus, *Temm. Pl. Col.* v. pl. 555 (1835); *Gray, List Grallæ Brit. Mus.* p. 74 (1844); *id. Gen. B.* iii. p. 552 (1845); *Temm. & Schl. Faun. Jap.* p. 119, pl. 75 (1850); *Bp. Consp.* ii. p. 98 (1854); *Swinh. P. Z. S.* 1863, p. 309 (N. China and Japan); *Radde, Reis. Sibir., Vög.* ii. p. 318 (1863: Desert of Gobi; Burega Mts., Amoor); *Schl. Mus. Pays-Bas*, Ralli, p. 4 (1865); *Swinh. Ibis*, 1867, p. 413 (Pekin); *Dyb. & Parvex, J. f. O.* 1868, p. 337 (Onon River; Darasun); *Swinh. P. Z. S.* 1871, p. 402 (Shanghai, winter); *Gray, Hand-l. B.* iii. p. 24, no. 10081 (1871); *Tacz. J. f. O.* 1873, p. 100 (Kultuk); *id. J. f. O.* 1874, p. 336; *id. Bull. Soc. Zool. France*, i. p. 246 (1876); *David & Oust. Ois. Chine*, p. 434 (1877); *Blakist. & Pryer. Ibis*, 1878, p. 220 (Tokio); *Przew. in Rowley's Orn. Misc.* iii. p. 47 (1878: Kalgan; Lake Baikal; S.E. Mongolia; Lake Hanka); *Tegetm. ed. Blyth's Monogr. Cranes*, p. 71 (1881); *Blakist. & Pryer, B. Japan*, p. 121 (1882); *Seeb. Ibis*, 1884, p. 178; *Blakist. Amended List B. Japan*, p. 24 (1884: not in Yezo), p. 42 (Nagasaki); *Boyd. Consp. Av. Imp. Ross.* p. 108 (1884: Dauria; Ussuri); *Seeb. Ibis*, 1884, p. 178 (Nagasaki); *id. B. Japan. Emp.* p. 353 (1890); *Styan, Ibis*, 1891, pp. 329, 502 (Yangtze Basin).
Antigone monachus, *Bp. C. R.* xxxviii. p. 661 (1854).

Adult male. General colour above and below slaty grey, with brownish margins to the feathers of the upper surface, and with greyish margins to the feathers of the under surface; primary-coverts and primaries brown; secondaries like the back, the innermost secondaries with drooping plumes of decomposed feathers; fore part of crown, forehead, and lores covered with black hair-like bristles; hinder crown and hinder neck, sides of upper neck, throat, and entire sides of face pure white: "bill greenish, tinged with red towards the base; feet dull reddish; iris yellow" (*E. Blyth*). Total length about 36 inches, culmen 4·1, wing about 19·5, tail 6·7, tarsus 8·1, middle toe and claw 3·6.

Hab. Breeding in Eastern Siberia, and probably also in Southern Japan, wintering in China.

a. Ad. st.	Japan.	Leyden Museum [E.].
b, c. Ad. sk.	Nagasaki, Japan.	F. Ringer, Esq. [P.].

6. Grus nigricollis.

Grus nigricollis, *Przew. in Rowley's Orn. Misc.* ii. p. 436, pl. ix. (1877); *Tegetmeier, Monogr. Cranes*, p. 70, pl. i. (1881).

"*Adult male.* Head and upper part of neck smoky black; crown naked, with a rough red skin covered with very few small hairy feathers, which cover rather thickly the forehead and lores; there is a small white spot behind the eyes. The lower portion of the neck, the upper and under tail-coverts, and the whole body are of a pale ashy colour, lighter than in *G. cinerea*. The inner webs of the large wing-coverts are brownish grey; the larger shoulder-feathers are blackish and brownish grey. Wings are dull black; the tertiaries and their coverts (all of which are black) are elongated, pointed at the end, branched at the points, and turned up and raised above the tail in a patch. Culmen greenish horn-colour, lighter on the tip; the feathered portion of the lower mandible extends 0″·3 further than the side-feathering on the upper mandible; legs black; iris golden yellow. Total length 48 inches, culmen 4·8, wing 25·3, tail 9·3, tarsus 10·2."

I have copied Przewalski's description, as the specimen presented by Mr. Seebohm is moulting and in somewhat imperfect plumage.

Hab. Kokonoor.

a. ♀ ad. sk.	Kokonoor (*Przewalski*).	Seebohm Coll.

7. Grus japonensis.

La Grue du Japon, *Briss. Orn.* v. p. 381 (1760).

Ardea (Grus) japonensis, *Müller, Syst. Nat. Suppl.* p. 110 (1776).

Japan Crane, *Lath. Gen. Syn.* iii. pt. 1, p 42 (1785).

Grus japonensis, *Gm. Syst. Nat.* i. p. 621 (1788); *Seebohm, B. Japan. Emp.* p. 351 (1890); *Campbell, Ibis*, 1892, p. 247 (Corea, winter migrant).

Grus viridirostris, *Vieill. Enc. Méth.* iii. p. 1141 (1823); *Swinh. P. Z. S.* 1863, p. 309 (N. China); *Gray, Hand-l. B.* iii. p. 25, no. 10089 (1871); *Swinh. P. Z. S.* 1871, p. 403, 1873, p. 512 (Shanghai); *Tacz. J. f. O.* 1873, p. 100 (Dauria), 1875, p. 255 (Ussuri Delta); *id. Bull. Soc. Zool. France*, i. p. 246 (1876); *David & Oust. Ois. Chine*, p. 435 (1877); *Tegetm. ed. Blyth's Monogr. Cranes*, p. 53 (1881); *Seeb. Ibis*, 1884, p. 178 (Japan, winter); *Blakist. Amended List B. Japan*, pp. 12, 41 (Japan generally); *Tacz. P. Z. S.* 1887, p. 611 (Corea); *id. P. Z. S.* 1888, p. 468; *Styan, Ibis*, 1891, pp. 329, 502 (Lower Yangtze in winter).

Grus collaris (*nec Bodd.*), *Temm. Pl. Col.* genus *Grus*, sp. 4 (1828).

Antigone montignesia, *Bp. C. R.* xxxvii. p. 661 (1854); *id. Consp.* ii. p. 100 (1854).

Grus montignesia, *Scl. in Wolf's Zool. Sketches*, 1st ser. pl. 46 (1861); *Bartlett, P. Z. S.* 1861, p. 369, pl. xxxv. (nesting); *Przew. Putesch. Ussuri*, p. 54 (1869); *Bogd. Consp. Av. Imp. Ross.* p. 109 (1884).

Grus leucogeranus, pt., *Dyb. & Parvex, J. f. O.* 1868, p. 337 (Darasun, *teste Tacz.*).

Grus leucauchen (*nec T.*), *Blakist. & Pryer, B. Japan*, p. 121 (1882).

Adult female. General colour above and below pure white, including the wing-coverts, primary quills, and tail; secondaries black, the innermost ones pointed and somewhat drooping, some of the feathers decomposed; head bare, the forehead and anterior crown as well as the lores covered with blackish hairs; cheeks, throat, and hind neck dark slaty grey enclosing a broad white band, which extends from the occiput down the hind neck, and extends laterally over the ear-coverts to the region over and below the eye: "bill and feet dull green; iris very dark, appearing black in the living bird" (*E. Blyth*). Total length about 50 inches, culmen 6·3, wing 24, tail 10·5, tarsus 10·2, middle toe and claw 5·2.

Hab. Eastern Siberia to Corea and Japan, wintering in the Yangtze basin.

a. Ad. sk.	Japan.	Lord Lilford [P.].
b. ♂ ad. sk.	Nagasaki, Japan.	F. Ringer, Esq. [P.].
c. ♀ ad. sk.	Corea, Jan. 20.	C. Campbell, Esq. [P.].
d. Ad. sk.	North China.	Zoological Society.

2. LIMNOGERANUS.

Type.

Limnogeranus, *Sharpe*, *Bull. Brit. Orn. Club*, no. vii. p. xxxvii (March 28, 1893) ..... L. americanus.

Range. The same as that of the single species of the genus.

1. Limnogeranus americanus.

The Hooping Crane, *Catesby*, *Nat. H. Carol.* i. p. 75, pl. 75 (1731); *Edwards*, *Nat. Hist. B.* p. 132, pl. 132 (1751); *Penn. Arctic Zool.* ii. p. 442 (1785); *Lath. Gen. Syn.* iii. pt. 1, p. 42 (1785).

La Grue d'Amérique, *Briss. Orn.* v. p. 382 (1760); *Daubent. Pl. Enl.* viii. pl. 889.

Ardea americana, *Linn. Syst. Nat.* i. p. 234 (1766); *Gm. Syst. Nat.* i. p. 621 (1788); *Wils. Amer. Orn.* viii. p. 20, pl. 64. fig. 3 (1814).

La Grue blanche, *Buff. Hist. Nat. Ois.* vii. p. 308 (1780).

Grus clamator, *Bartr. Trav. Florida*, p. 292 (1791).

Grus americana, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 557 (1817); *Temm. Man.* p. c (1820); *Audub. B. Amer.* pl. ccxxvi.; *Swains. & Richards. Faun. Bor.-Amer., Birds*, p. 372 (1831); *Nutt. Man.* ii. p. 134 (1834); *Audub. Orn. Biogr.* iii. p. 202 (1835); *id. B. Amer.* 8vo, p. 188, pl. 313 (1842); *Gray, List Grall. Brit. Mus.* p. 74 (1844, pt.); *id. Gen. B.* iii. p. 552 (1845); *Reichenb. Handb., Fulic.* tab. 214. fig. 429, tab. 217. fig. 286 (1852); *Bp. Consp.* ii. p. 99 (1854); *Cass. in Baird, Cass. & Lawr. B. N. Amer.* p. 654 (1858); *Blakist. Ibis*, 1863, p. 128 (Fort Simpson); *Scht. Mus. Pays-Bas*, Ralli, p. 4 (1865); *Dresser, Ibis*, 1866, p. 30 (S. Texas); *Turnb. B. East Pennsylv.* p. 43 (1869); *Gray, Hand-l. B.* iii. p. 24, no. 10085 (1871); *Trippe, Proc. Essex Inst.* vi. p. 118 (1871); *id. Proc. Bost. Soc.* xv. p. 240 (1872: Iowa); *Aiken, t. c.* p. 209 (1872: Colorado); *Coues, Key N.-Amer. B.* p. 271 (1872); *Allen, Bull. Mus. C. Z. Cambr.* iii. p. 182 (1872: Kansas); *Snow, B. Kansas*, p. 9 (1873); *Ridgw. Ann. Lyc. N. Y.* x. p. 387 (1874); *Coues, B. N.-West*, p. 530 (1874); *Merrill, Proc. U.S. Nat. Mus.* i. p. 165 (1878:

S. Texas); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 61 (1878: Texas); *Coues, t. c.* p. 646 (Moose River); *Maym. B. E. N. Amer.* p. 424 (1879); *Ridgw. Proc. U.S. Nat. Mus.* iii. p. 202 (1880); *Tegetm. ed. Blyth's Mon. Cranes*, p. 54 (1881); *Coues, Check-l. N. Amer. B.* p. 108 (1882); *id. Key N. Amer. B.* 2nd ed. p. 666 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* i. p. 404 (1884); *Drew, Auk*, ii. p. 18 (1885: Colorado); *Agersb. t. c.* p. 287 (S.E. Dakota, migrant); *Anthony, Auk*, iii. p. 164 (1886: Oregon, autumn migrant); *A. O. U. Check-l.* p. 139 (1886); *Lloyd, Auk*, iv. p. 185 (1887: W. Texas, migrant); *Ridgw. Man.* p. 135 (1887); *Beckh. Proc. U.S. Nat. Mus.* x. pp. 637, 650 (1887: Texas); *Thomps. Proc. U.S. Nat. Mus.* xiii. p. 491 (1890: Manitoba, breeding); *Macf. Proc. U.S. Nat. Mus.* xiv. p. 423 (1891).

Grus struthio, *Wagler, Syst. Av.*, Grus, sp. 6 (1827).

Grus hoyanus, *Dudley, Proc. Philad. Acad.* vii. p. 64 (1854); *Hartl. J. f. O.* 1855, pp. 366, 427; *Stimpson, Mem. Chicago Acad.* i. p. 129, pl. 19 (1868).

Limnogeranus americanus, *Sharpe, Bull. B. O. C.* i. p. xxxvii (1893).

Adult. General colour above and below pure white, including the wings and tail; the feathers of the bastard-wing, primary-coverts, and primaries black, some of the greater coverts slightly dusted with blackish; head bare, as also the lores and cheeks; the anterior portion of the forehead, as well as the lores and cheeks, rather closely covered with blackish bristles; on the nape a triangular patch of slaty-black feathers: "bill wax-yellow; feet bluish black; iris gamboge-yellow" (*J. Richardson*). Total length about 48 inches, culmen 5·4, wing about 23·5, tail 8·5, tarsus 10·8, middle toe and claw 4·4.

"*Immature.* Bare portions of the head indicated by feathers of a harsher texture and darker colour than elsewhere, occupying the areas which are naked in the fully adult. Plumage much stained with pale cinnamon, as in the first plumage" (*Baird, Brewer, & Ridgway*).

Hab. Interior of North America—north to the Saskatchewan, south to Florida and Central Mexico (*Ridgway*).

a. Ad. sk.	Fort Simpson, June 10.	B. R. Ross, Esq. [P.].
b. Ad. sk.	49th Parallel (*G. Dawson*).	N.-A. Bound. Comm.
c. ♂ ad. sk.	Brownsville, Texas, April 2 (*F. B. Armstrong*).	Salvin-Godman Coll.

3. SARCOGERANUS.

Type.

Leucogeranus, *Bp. C. R.* xl. p. 720 (1855; nom. nudum) *.

Sarcogeranus, *Sharpe, Bull. Brit. Orn. Club*, no. vii. p. xxxvii (March 28, 1893)..... S. leucogeranus.

Range. The same as that of the single species of the genus.

* This name is used by Bonaparte to mark a section of his genus *Antigone*. As he did not give any characters or recognize the name as implying a distinct genus, which would have involved the adoption of the awkward combination of *Leucogeranus leucogeranus*, I have proposed a new name altogether for the genus.

1. Sarcogeranus leucogeranus.

Grus leucogeranus, *Pall. Reis. Russ. Reichs*, ii. Anhang, p. 714 tab. F. (1773); *id. Zoogr. Rosso-Asiat.* ii. p. 103 (1811: Lena River; Dauria); *Wagl. Syst. Av.*, Grus, sp. 5 (1827); *Temm. Pl. Col.* v. pl. 467 (1829); *Gould, B. Eur.* iv. pl. 271 (1837); *Keys. & Blas. Wirb. Eur.* pp. lix, 206 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 266 (1840: Ekatérinoslaw; Volga; Caspian); *Gray, List Gralle Brit. Mus.* p. 74 (1844); *id. Gen. B.* iii. p. 552 (1845); *Temm. & Schl. Faun. Japon.* p. 118, pl. 73 (1850); *Schrenck, Reis. Amur-l., Vög.* p. 407 (1859); *Irby, Ibis*, 1861, p. 343 (Oudh); *Swinh. P. Z. S.* 1863, p. 308 (N. China); *Radde, Reis. Sibir., Vög.* p. 312 (1863: N. Mongolia); *Jerd. B. Ind.* iii. p. 663 (1864); *Schl. Mus. Pays-Bas*, Ralli, p. 5 (1865); *Degl. & Gerbe, Orn. Eur.* ii. p. 277 (1867); *Blyth, Ibis*, 1867, p. 166 (Oudh); *Hume, Ibis*, 1868, p. 28 (N.W. India); *Brooks, Ibis*, 1869, p. 237 (Etawah); *Elwes & Buckley, Ibis*, 1870, p. 383 (Macedonia); *Fritsch, Vög. Eur.* Taf. 41. fig. 1 (1870); *Swinh. P. Z. S.* 1871, p. 403 (Leautung Prov., breeding); *A. Anderson, t. c.* p. 677 (Futtegurh, Jan.); *Gray, Hand-l. B.* iii. p. 25, no. 10088 (1871); *Elwes, P. Z. S.* 1873, p. 469; *Severtz. Turkest. Jevotn.* p. 68 (1873: ? breeding); *Hume, Str. F.* i. p. 235 (1873: Sind); *Dresser, Ibis*, 1876, p. 324; *Tacz. Bull. Soc. Zool. France*, i. p. 247 (1876); *David & Oust. Ois. Chine*, p. 436 (1877); *Dresser, B. Eur.* vii. p. 359, pl. 507 (1878); *Blakist. & Pryer, Ibis*, 1878, p. 224 (Japan); *Butler, Str. F.* vii. p. 187 (E. Narra); *id. Cat. B. Sind &c.* p. 60 (1879); *Seeb. Ibis*, 1879, p. 149 (Yenesei); *Hume, Str. F.* viii. p. 112 (1879); *Danf. Ibis*, 1880, p. 94 (Asia Minor); *Hume & Marsh. Game B. Ind.* iii. p. 11, pl. 2 (1880); *Reid, Str. F.* x. p. 67 (1881: Lucknow); *Tegetm. ed. Blyth's Monogr. Cranes*, p. 38 (1881); *Seeb. Ibis*, 1882, p. 226 (Astrachan in spring); *Forbes, P. Z. S.* 1882, p. 352; *Blakist. Amended List B. Japan*, p. 12 (1884: not in Yezo), p. 42 (Nagasaki); *Boyd. Consp. Av. Imp. Ross.* p. 108 (1884); *Radde, Orn. Cauc.* p. 391 (1884); *Seeb. Ibis*, 1884, p. 177 (Japan, winter); *Seeb. B. Japan. Emp.* p. 349 (1890); *Styan, Ibis*, 1891, pp. 329, 502 (Lower Yangtze, winter); *Eagle Clarke, Ibis*, 1891, p. 635; *id. Annals Scot. N. H.* i. p. 71 (1892).

Ardea gigantea, *S. G. Gmelin, Reis. Russl.* ii. p. 189 (1774).

Grus gigantea, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 558 (1817).

Antigone leucogeranus, *Reichenb. Handb., Fulic. Novit.* Taf. civ. figs. 2859, 2860 (1852); *Bp. Consp. Av.* ii. p. 99 (1854); *id. C. R.* xxxviii. p. 661 (1854).

Leucogeranus giganteus, *Bp. Cat. Coll. Parzud.* p. 9 (1857).

Grus polii, *Yule, Book of Ser Marco Polo*, i. p. 262 (1871).

Sarcogeranus leucogeranus, *Sharpe, Bull. B.O.C.* i. p. xxxvii (1893).

Adult. General colour above and below, including the wings and tail, white; bastard-wing, primary-coverts, and primaries white, the latter with yellowish-white shafts; the secondary quills black, including the long falcated inner secondaries, some of which are more or less ashy grey, or white on the outer web; crown of head bare, black like the lores; sides of head, ear-coverts, and entire hind neck from the nape downwards white; sides of face and cheeks, as well as the sides of the neck and throat, slaty grey, joining on the hind neck; under wing-coverts white, with a few blotches of ashy grey, forming an irregular bar across the wing: "bill umber-

brown, very smooth and polished; feet dull reddish pink, varying to dull red, somewhat brighter on the toes; iris bright, very pale yellow, in some birds almost silvery, in others a pinkish tinge" (*A. O. Hume*). Total length about 54 inches, culmen 6·15, wing about 25, tail 10·15, tarsus 11·45, middle toe and claw 5.

Adult female. Similar to the male, but a little smaller. Total length 50 inches, culmen 7·4, wing 23, tail 7·9, tarsus 10·4.

Young. Similar to the adult, but the greater part of the feathers pale rust-colour, instead of white.

Hab. From South-eastern Europe and Asia Minor to Western Siberia and eastward to Japan, wintering in N.W. India and China.

a. Ad. st.	Russia.	J. Gould, Esq.
b. Imm. sk.	Barnaul, W. Siberia, June 22 (*Dr. O. Finsch*).	Geogr. Soc. Bremen [P.].
c. Ad. sk.	Siberia.	Lord Lilford [P.].
d, e, f. Ad. sk.	Etawah.	Hume Coll.
g, h. ♂ ♀ ad.; *i.* ♀ juv. sk.	Toman Jheel, Etawah, Feb.	Hume Coll.
k. ♂ ad.; *l, m.* Ad. sk.	Futtegurh, Oudh, Dec., Feb. (*A. Anderson*).	Hume Coll.

4. ANTIGONE.

Type.

Antigone, *Reichenb. Handb. Spec. Orn.* p. xxiii (1852) .. A. collaris.

Range. Caspian Sea, Indian Peninsula, Burmese countries to Cochin China, and south to Penang. Eastern Australia.

Key to the Species.

a. Neck bare for half its length; inner secondaries grey with no white bases.
  a'. A broad white band of feathers on the upper portion of the neck, separating the bare neck from the grey of the back; inner secondaries white ..... *collaris*, p. 262.
  b'. No white band on the neck, the feathers of which are entirely grey; inner secondaries grey, the bases also grey ..... *antigone*, p. 264.
b. Neck feathered right up to the nape; inner secondaries grey with white bases ..... *australasiana*, p. 265.

1. Antigone collaris.

La Grue à collier, *Daubent. Pl. Enl.* viii. pl. 865; *Buff. Hist. Nat. Ois.* vii. p. 307 (1780).
Grus collaris, *Bodd. Tabl. Pl. Enl.* p. 52 (1783).
Indian Crane, var. *a*, *Lath. Gen. Syn.* iii. pt. i. p. 39 (1785).
Ardea antigone, var. *β*, *Gm. Syst Nat.* i. p. 622 (1788).
Grus torquata, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 560 (1817); *id. Gal. Ois.* ii. p. 256 (1825); *Wagl. Syst. Av.*, Grus, sp. 11 (1827).
Grus orientalis, *Frankl. P. Z. S.* 1831, p. 123.

Grus antigone (*nec L.*), *Hodgs. Icon. ined. in Brit. Mus.* App. pl. 176 (no. 966); *Sykes, P. Z. S.* 1832, p. 157 (Deccan); *Nordm. in Démid. Voy. Russ. Mérid.* p. 265 (1840: Astrachan); *Jerd. Madr. Journ.* xi. p. 194 (1840); *Reichenb. Handb., Fulic.* tab. cxxix. figs. 1235–1240 (1852); *Irby, Ibis*, 1861, p. 342 (Oudh); *Jerd. B. Ind.* iii. p. 662 (1864); *Schl. Mus. Pays-Bas*, Ralli, p. 3 (1865), *Huxley, P. Z. S.* 1867, pp. 430, 457; *Beavan, Ibis*, 1868, p. 391 (Umbala: Barrackpur); *Gray, Hand-l. B.* iii. p. 24, no. 10090 (1871); *Garrod, P. Z. S.* 1873, pp. 469, 640; *Hayes Lloyd, Ibis*, 1873, p. 416 (Kathiawar); *Hume, Nests & Eggs Ind. B.* p. 584 (1873); *id. Str. F.* i. p. 234 (1873: Sind); *Adam, t. c.* p. 395 (Sambhur: nesting); *Ball, Str. F.* ii. p. 430 (Sirjuja Valley); *Butler, Str. F.* iv. p. 14 (1876: Mt. Abu); *Garrod, P. Z. S.* 1876, p. 277; *Ball, Str. F.* vii. p. 227 (1878: Ganges to Godaveri); *Hume, Str. F.* viii. p. 112 (1879, pt.); *Scully, t. c.* pp. 352, 368 (Nepal Terai); *Butler, Cat. B. Sind &c.* p. 60 (1879); *Hume & Marshall, Game B. Ind.* iii. p. i, pl. 1 (1880); *Tegetm. ed. Blyth's Monogr. Cranes*, p. 47 (1881, pt.); *Reid, Str. F.* x. p. 67 (1881: Lucknow); *Davidson, t. c.* p. 319 (1882: Khandeish); *Simson, Ibis*, 1882, p. 93 (Dacca): *Forbes, P. Z. S.* 1882, p. 352; *Murray, Vertebr. Faun. Sind*, p. 235 (1884); *Radde, Orn. Cauc.* p. 391 (1884: W. of Caspian; Derbent; Volga; Don); *Swinh. & Barnes, Ibis*, 1885, p. 133 (Mhow); *Oates, ed. Hume's Nests & Eggs Ind. B.* iii. p. 372 (1890).

Grus torquata, *Gray, List Gralla Brit. Mus.* p. 75 (1844); *id. Gen. B.* iii. p. 552 (1845); *Reichenb. Handb., Fulic.* tab. cxxvii. fig. 428 (1852).

Antigone antigone, pt., *Bp. Consp. Av.* ii. p. 100 (1854).

Antigone torquata, *Reichenb. Handb. Spec. Orn.* p. xxiii (1852); *Bp. C. R.* xxxviii. p. 661 (1854); *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 71 (1863).

Adult male. General colour above light pearly grey, including the wing-coverts, the greater coverts lighter pearly grey, resembling the secondaries; bastard-wing, primary-coverts, and quills blackish brown; secondaries ashy on the outer web, somewhat whiter on the inner, the innermost secondaries elongated and somewhat lanceolate, pure white, contrasting with the back; tail light pearly grey; head and upper neck bare, the ear-coverts and chin concealed by a patch of ashy-grey feathers, the nape granulated as also the bare part of the hind neck, the throat and sides of the neck with numerous black and bristly hairs; neck all round below the granulated portion pure white for some distance, the lower neck and under surface of body ashy grey, becoming pearly grey on the under tail-coverts, under wing-coverts, and axillaries, the lower greater coverts inclining to pearly white: "bill pale greenish horny, with dark tip; skin on crown pale ashy green; papillose skin of head and neck orange-red, shaded darker here and there, and furnished with a scanty black wattle; at the bottom of the neck, bordering the plumage, is a collar-like space of bright orange skin; iris orange; legs reddish or flesh-colour" (*Tickell*). Total length about 40 inches, culmen 6·9, wing about 23, tail 9·5, tarsus 11, middle toe and claw 5.

Adult female. Similar to the male. Total length about 40 inches,

culmen 6·5, wing about 23, tail 9·2, tarsus 11, middle toe and claw 5·3.

Hab. Astrachan and shores of the Caspian Sea. Indian Peninsula, east to the neighbourhood of Calcutta and south to Khandeish.

a. Ad. st.	India.	Capt. Boys [C.].
b. ♀ ad. sk.	Sambhur, Jan. 7 (*R. M. Adam*).	Hume Coll.
c. ♂ ad. sk.	Sultanpur, Gurgaon Distr., April 24 (*W. N. Chill*).	Hume Coll.
d. Ad. sk.	Delhi.	Hume Coll.
e, f. ♀ ad. sk.	Etawah.	Hume Coll.
g, h. Ad. sk.	Oudh, Jan., Feb.	Hume Coll.
i. Ad. sk.	Nepal.	Hodgson Coll.
k. ♂ ad. sk.	Seoni, Central Provinces.	Hume Coll.

2. Antigone antigone.

The Greater Indian Crane, *Edwards, Nat. Hist. B.* i. p. 45, pl. 45 (1743).

La Grue des Indes Orientales, *Briss. Orn.* v. p. 378 (1760).

Ardea antigone, *Linn. Syst. Nat.* i. p. 235 (1766); *Gm. Syst. Nat.* i. p. 622 (1788).

Indian Crane, *Lath. Gen. Syn.* iii. pt. i. p. 38 (1785).

Grus antigone, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 560 (1817); *Wagl. Syst. Av.*, Grus, sp. 10 (1827); *Gray, List Gralle Brit. Mus.* p. 74 (1844); *id. Gen. B.* iii. p. 552 (1845); *Blyth, B. Burm.* p. 157 (1875); *Oates, Str. F.* v. p. 164 (1877: Lower Pegu, nesting); *Wardlaw Ramsay, Ibis*, 1877, p. 468 (Tonghoo: breeding); *Hume & Davis. Str. F.* vi. p. 458 (1878: Sittang and Salween Rivers); *Anderson, Rep. Exped. Yunnan, Zool.* p. 684 (1878: Tsitkau); *Hume, Str. F.* viii. p. 112 (1879, pt.); *Oates, Str. F.* x. p. 238 (1882); *id. Handb. B. Brit. Burm.* ii. p. 352 (1883); *id. Hume's Nests & Eggs Ind. B.* iii. p. 372 (1890, pt.).

Antigone antigone, *Bp. Consp. Av.* ii. p. 100 (1854, pt.).

Adult male. Similar to *A. collaris*, but having pearly grey inner secondaries instead of white, and having the whole of the neck below the bare or granulated portion grey, and not white as in *A. collaris*: "bill and coronal skin greenish glaucous; skin of the face and neck pale brick-red; legs fleshy pink, brownish in front; iris reddish orange" (*R. G. Wardlaw Ramsay*). Total length about 40 inches, culmen 7·2, wing about 25, tail 9, tarsus 12, middle toe and claw 5·4.

Adult female. Similar to the male. Total length about 40 inches, culmen 6·9, wing about 24, tail 8·4, tarsus 12·5, middle toe and claw 4·5.

Young. Similar to the adult, but having the grey plumage somewhat more washed with rusty brown, the whole of the head and upper part of the neck covered with rust-coloured feathers.

Mr. Oates follows Blyth in supposing that the white neck in the species of *Antigone* is characteristic of the breeding-season. I do not agree with this theory, especially as I find that all the dark-coloured specimens belong to the Burmese countries, and the light ones to India.

Hab. Burmese countries to Cochin China and south to Penang.

a. ♂ ad. sk.	Pegu, March (*E. W. O.*).	Oates Coll.
b, *c*, *d*. ♀ ad. et pull. sk.	Tonghoo, Aug., Sept. (*R. G. W. R.*).	Tweeddale Coll.
e. ♀ ad. sk.	Thatone.	Hume Coll.
f. Ad. sk.	Amherst.	Hume Coll.
g. Ad. ; *h*. juv. sk.	Penang (*Cantor*).	India Museum.
i. Ad. sk.	Cochin China.	M. E. Pierre [P.].

3. Antigone australasiana.

Grus australasiana, *Gould, B. Austr.* vi. pl. 48 (1848) ; *Gray, Gen. B.* iii. App. p. 25 (1849) ; *Reichenb. Vög. Neuholl.* p. 243 (1850) ; *id. Handb., Fulic.* tab. cccxli. fig. 2691 (1852) ; *Bp. Consp. Av.* ii. p. 98 (1854) ; *Schl. Mus. Pays-Bas*, Ralli, p. 3 (1865) ; *Gould, Handb. B. Austr.* ii. p. 290 (1865) ; *Gray, Hand-l. B.* iii. p. 25, no 10091 (1871) ; *Ramsay, P. Z. S.* 1877, p. 340 (Herbert District) ; *Casteln. & Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 385 (1877) ; *Ramsay, op. cit.* ii. p. 198 (1878) ; *Forbes, P. Z. S.* 1881, p. 644 ; *Tegetm. ed. Blyth's Monogr. Cranes*, p. 51 (1881) ; *Ramsay, Tab. List Austr. B.* p. 20 (1888) ; *North, Nests & Eggs Austr. B.* p. 314 (1889) ; *Cox & Hamilton, Proc. Linn. Soc. N. S. W.* (2) iv. p. 421 (1890 : Mudgee District).

Adult. General colour above grey, with very conspicuously paler grey margins to the feathers ; wing-coverts like the back and similarly margined ; bastard-wing blackish ; primary-coverts black, with an ashy shade ; above the primary-coverts a supplementary covert, grey like the back, with the same light edging ; primaries black ; secondaries dark ashy like the back, including the elongated inner secondaries, which have ashy whitish tips ; lower back, rump, and upper tail-coverts uniform pearly grey ; tail-feathers slaty grey, blackish towards the tips ; entire crown bare, the hinder crown with coarse papillæ ; hind neck from the nape downwards, sides of neck, and entire under surface of body uniform pearly grey ; on the ear-coverts a patch of dark ashy feathers ; chin and upper throat bare ; under wing-coverts, axillaries, and hypopteral plumes like the breast. "Crown of head and bill olive-green, the latter becoming lighter towards the tip ; iris fine orange-yellow ; raised fleshy papillæ surrounding the ears and back of the head fine coral-red, passing into an orange tint above and below the eye, and becoming less brilliant on the sides of the face, which, together with the gular pouch, is covered with fine black hairs, so closely set on the latter as almost to conceal the red colouring of the skin ; upper part of the pouch and the bare skin beneath the lower mandible olive-green ; in old males the gular pouch very pendulous and forms a conspicuous appendage ; legs and feet purplish black" (*J. Gould*). Total length about 42 inches, culmen 6, wing 20·5, tail 7·5, tarsus 10·2, middle toe and claw 3·6.

Hab. Eastern Australia.

a, *b*. Ad. sk.	Australia.	Purchased.
c, *d*. Ad. sk.	Queensland.	Salvin-Godman Coll.

5. PSEUDOGERANUS.

Type.

Pseudogeranus, *Sharpe, Bull. Brit. Orn. Club*, no. vii. p. xxxvii (March 28, 1893) ..... P. leucauchen.

Range. The same as that of the single species of the genus.

1. Pseudogeranus leucauchen.

Grus antigone *(nec L.)*, *Pall. Zoogr. Rosso-As.* ii. p. 102 (1811); *Dybowski & Parvex, J. f. O.* 1868, p. 337 (Darasnu); *Seeb. Ibis*, 1879, p. 28.

? Grus vipio, *Pall. t. c.* p. 111 (1811, = juv. *teste Bogd.*) *.

Grus leucauchen, *Temm. Pl. Col.* v. pl. 449 (1838); *Gray, List Grallæ Brit. Mus.* p. 74 (1844: Japan); *id. Gen. B.* iii. p. 552 (1845); *Temm. & Schl. Faun. Jap.* p. 119 (1850); *Radde, Reis. Sibir., Vög.* p. 314, Taf. 14. fig. 2 (1863; egg); *Swinh. P. Z. S.* 1871, p. 402; *Tacz. J. f. O.* 1873, p. 100 (Kultuk: breeding), 1874, p. 336; *Elwes, P. Z. S.* 1873, p. 469; *Tacz. Bull. Soc. Zool. France*, i. p. 246 (1876: Dauria, Amur, Ussuri); *David & Oust. Ois. Chine*, p. 435 (1877); *Blakist. & Pryer, Ibis*, 1878, p. 224 (Japan: migrant); *Tegetm. ed. Blyth's Monogr. Cranes*, p. 35 (1881); *Blakist. Amended List*, p. 12 (1884: Japan generally), p. 42 (Nagasaki); *Bogd. Consp. Av. Imp. Ross.* p. 107 (1884); *Seeb. Ibis*, 1884, p. 177; *Tacz. P. Z. S.* 1887, p. 611, 1888, p. 468 (Corea); *Seeb. B. Japan. Emp.* p. 352 (1890).

Scops vipio, *Gray, Gen. B.* iii. p. 553 (1845).

Grus vipio, *Bp. Consp. Av.* ii. p. 98 (1854); *Schl. Mus. Pays-Bas*, Ralli, p. 3 (1865); *Gray, Hand-l. B.* iii. p. 24, no. 10080 (1871); *Styan, Ibis*, 1891, pp. 329, 502 (Lower Yangtze).

Antigone leucauchen, *Bp. C. R.* xxxviii. p. 661 (1854).

Grus, sp. incogn., *Blakist. & Pryer, Ibis*, 1878, p. 225.

Pseudogeranus leucauchen, *Sharpe, Bull. B. O. C.* i. p. xxxvii (1893).

Adult. General colour above slaty grey, with obscure margins of lighter ashy grey; wing-coverts lighter than the back, the median and greater coverts especially so, the latter being white at the ends; bastard-wing and primary-coverts blackish, with a slight ashy shade, the small coverts preceding the primary-coverts pearly grey: primaries black with white shafts, the secondaries black with white bases, the inner elongated secondaries being white and falcate: lower back, rump, and upper tail-coverts rather darker slate-colour, as also the base of the tail; tail-feathers dark slaty grey, with a broad terminal band of black; fore part of crown, sides of face, and lores bare, with bristly black hairs; ear-coverts with a patch of dull ashy feathers; hinder crown white, like the hind neck, sides of upper neck, and throat; remainder of sides of neck and under surface of body from the lower throat downwards dark slaty grey; under tail-coverts white; under wing-coverts and hypopteral plumes paler ashy grey: "bill dull green; legs dull pink; iris bright orange-yellow; bare face crimson and papillose"

* Pallas has derived his description from Gmelin's manuscript, and it is quite uncertain from what species it was taken, so that I think it is best to fall back upon the more certain one of *leucauchen*.

(*E. Blyth*). Total length 40 inches, culmen 6·5, wing about 23, tail about 8·5, tarsus 11, middle toe and claw 4·5.

Nestling. Coloured with tawny-coloured down, darker and more reddish brown on the middle of the back, the head and neck rather paler and more rusty, the under surface of the body whiter, the sides of the body and fore neck tawny (*Mus. Lugd.*).

Hab. Eastern Siberia from Lake Baikal to the Corea and Japan, south to the Yangtze basin in winter.

a, *b*. ♂ ♀ ad. sk.	Nagasaki, Japan, Feb. 19.	F. Ringer, Esq. [P.].
c. ♀ ad. sk.	Japan.	Lord Lilford [P.].

6. BUGERANUS.

Type.

Bugeranus, *Gloger, Handb. Naturg.* p. 440 (1842) . . B. carunculatus.
Laomedontia, *Reichenb. Handb. Spec. Orn.* p. xxiii (1852) . . . . . B. carunculatus.

Range. Confined to South Africa.

1. Bugeranus carunculatus.

Wattled Heron, *Lath. Gen. Syn.* iii. pt. 1, p. 82, pl. lxxvii. (1785).
Ardea carunculata, *Gm. Syst. Nat.* i. p. 643 (1788); *Vieill. Gal. Ois.* ii. Suppl. pl. 20 (1825).
Grus carunculata, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 559 (1817); *id. Enc. Méth.* p. 1140, pl. 53, fig. 3 (1823); *Wagler, Syst. Av.*, Grus, sp. 4 (1827); *Less. Traité d'Orn.* p. 586 (1831); *Guérin, Iconogr. Règne An.* pl. 31: fig. 3; *Gray, List Gralle Brit. Mus.* p. 74 (1844); *id. & Mitchell, Gen. B.* iii. p. 552, pl. 149 (1845); *Rüpp. Syst. Uebers.* p. 120 (1845); *Heugl. Syst. Uebers.* p. 57 (1856); *Gurney, Ibis*, 1864, p. 355 (Interior of Natal); *Schl. Mus. Pays-Bas*, Ralli, p. 5 (1865); *Layard, B. S. Afr.* p. 302 (1867); *Gurney, Ibis*, 1868, p. 467 (Vaal River, breeding); *Gray, Hand-l. B.* iii. p. 24, no. 10087 (1871); *Finsch & Hartl. Vög. Ostafr.* p. 670 (1870: Mozambique); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 1253 (1873); *Mont. Angola*, ii. p. 203 (1875); *Forbes, P. Z. S.* 1877, p. 307; *Tegetm. ed. Blyth's Mon. Cranes*, p. 33 (1881); *Holub & Pelz. Beitr. Orn. Südafr.* p. 247 (1882: Fish River); *Shelley, Ibis*, 1882, p. 363 (Mashona Land); *Forbes, P. Z. S.* 1882, p. 352; *Sharpe, ed. Layard's B. S. Afr.* p. 626 (1884); *Hartert, Kat. Vogels. Senck. Mus.* p. 209 (1891).
Ardea palearis, *Forster, Icon. ined.* no. 115; *id. Descr. Anim.* p. 47 (1844).
Bugeranus carunculatus, *Gloger, Handb. Naturg.* p. 440 (1842): *Gurney in Anderss. B. Damara Ld.* p. 278 (1872).
Laomedontia carunculata, *Reichenb. Handb. Spec. Orn.* p. xxiii (1850); *id. Handb., Fulic.* tab. cxxvii. fig. 431 (1852); *Bp. Consp. Av.* ii. p. 100 (1854); *Bocage, Orn. Angola*, p. 436 (1881: Humbe): *Butler, Feilden, & Reid, Zool.* 1882, p. 342 (Newcastle District); *Souza, Jorn. Lisb.* xi. p. 80 (1886: Zambesi).
Wattled Crane, *Chapm. Trav. S. Afr.* ii. App. p. 417 (1868).

Adult. General colour above dark ashy grey; lower back, rump, upper tail-coverts, and tail black; mantle blackish brown, this

colour overspreading the upper back; wing-coverts like the back, the greater series a little lighter and more pearly grey; bastard-wing, primary-coverts, and quills black, dusted with ashy grey; secondaries for the most part ashy grey, blackish at the ends, the innermost ones enormously produced; crown of head slaty grey; entire neck from the nape to the mantle, sides of face, throat, and chest white, the feathers of the latter very much elongated; on either side of the throat a white-feathered lappet; the lores, the base of the bill, as far as the nostrils, and fore part of cheeks very coarsely granulated; breast and remainder of under surface, including the under tail-coverts, under wing-coverts, and axillaries, grey: "bill light reddish brown; bare warty skin at base of bill dull red; thighs, tarsi, and feet black; iris orange-yellow" (*T. Ayres*). Total length about 54 inches, culmen 6·5, wing about 30, tail 11, tarsus 12·3, middle toe and claw 6·8.

Hab. South Africa, from the Eastern Cape Colony north to the Zambesi and west to Damara-land and Benguela. Rüppell's statement that the species is found in Shoa needs confirmation.

a. Ad. st.	South Africa.	Dr. Krauss [C.].
b, c. Ad. sk.	South Africa.	Purchased.
d. Ad. sk.	Natal.	Purchased.

7. TETRAPTERYX.

Type.

Tetrapteryx, *Thunb. K. Vet. Ak. Forh. Stockh.* 1818, p. 242 ..... T. paradiseus.
Geranus, *Bp. C. R.* xxxviii. p. 661, note (1854) ..... T. paradiseus.

Range. Confined to South Africa.

1. Tetrapteryx paradisea.

Ardea paradisea, *Licht. Cat. Rer. Rariss. Hamb.* p. 28 (1793); *id. Verz. Doubl.* p. 78 (1823: Kaffraria).

Tetrapteryx capensis, *Thunb. K. Vetensk. Akad. Forh.* 1818, p. 242, t. 8.

Anthropoides stanleyanus, *Vig. Zool. Journ.* ii. p. 234, pl. 8 (1826); *Layard, B. S. Afr.* p. 303 (1867); *Chapm. Trav. S. Afr.* ii. App. p. 417 (1868); *Ayres, Ibis*, 1869, p. 300 (Transvaal; breeding); *Layard, t. c.* p. 376; *Ayres, Ibis*, 1871, p. 269 (Mooi and Vaal Rivers); *Barratt, Ibis*, 1876, p. 209 (Lydenburg; Bloemfontein; Potchefstroom).

Grus stanleyana, *Wagl. Syst. Av.*, Grus, sp. 3 (1827).

Grus paradisea, *Wagl. t. c.* sp. 8; *Grill, Zool. Anteckn.* p. 54 (1859: Mossel Bay); *Scht. Mus. Pays-Bas*, Ralli, p. 6 (1865); *Finsch & Hartl. Vög. Ostafr.* p. 671 (1870); *Tegetm. ed. Blyth's Mon. Cranes*, p. 23 (1881); *Shelley, Ibis*, 1882, p. 363 (Mashona); *Butler, Feilden, & Reid, Zool.* 1882, p. 342 (Newcastle distr.).

Grus capensis, *Less. Traité d'Orn.* p. 587 (1831).

Anthropoides paradisea, *Less. t. c.* p. 587; *Martin, P. Z. S.* 1836, p. 30; *Gray, List. Grall. Brit. Mus.* p. 75 (1844); *id. Hand-l. B.* iii. p. 25, no. 10093 (1871); *Sharpe, ed. Layard's B. S. Afr.* p. 628 (1884).

Scops paradisea, *Gray, Gen. B.* iii. p. 553 (1845).

Tetrapteryx paradisea, *Bp. Consp. Av.* ii. p. 101 (1854); *Gurney in Andersson's B. Dam. Land*, p. 278 (1872); *Buckley, Ibis*, 1874, p. 389 (Transvaal); *Holub & Pelz. Beitr. Orn. Sudafr.* p. 248 (1882); *Forbes, P. Z. S.* 1882, p. 353.
Geranus paradisea, *Bp. C. R.* xxxviii. p. 661, note (1854).
Grus caffra, *Fritsch, Drei Jahre in Sudafr.* p. 108 (1868).

Adult male. General colour above and below light slaty grey, the feathers of the upper surface with pale ashy margins; wing-coverts also slaty grey; bastard-wing, primary-coverts, and quills brown, shaded with ashy; secondaries for the most part ashy, the innermost ones enormously prolonged; head entirely feathered, lores and crown of head white, with a frill of dense feathers on the nape, which are dark ashy grey, the chin, cheeks, and ear-coverts paler and more pearly grey; remainder of under surface slaty grey, the feathers of the fore neck and chest conspicuously elongated and lanceolate: "bill yellow ochre with a tinge of red; legs black; iris dark brown" (*Butler, Feilden, and Reid*): "bill, tarsi, and feet black" (*T. Ayres*). Total length about 40 inches, culmen 3·6, wing about 23, tail 9·5, tarsus 9·8, middle toe and claw 4·3.

Adult female. Smaller than the male (*E. L. Layard*).

Hab. South Africa from the Cape Colony east to Mashona-land, and west to Great Namaqua-land and Damara-land.

a. Juv. st.	South Africa.	Purchased.
b, c. Ad. et imm. st.	South Africa.	Purchased.
d. ♀ ad. st.	South Africa.	Lord Lilford [P.].
e. Ad. (head).	Ingagane River, Natal, July 9.	Capt. Savile Reid [C.].
f. Ad. sk.	Transvaal.	A. Foreman, Esq. [P.].
g. ♂ ad. sk.	Potchefstroom, Transvaal, Feb.	F. A. Barratt, Esq. [P.].
h. Skeleton.	South Africa.	Purchased.

8. ANTHROPOIDES.

Type.
Anthropoides, *Vieill. Analyse*, p. 59 (1816) ..... A. virgo.
Philorchemon, *Gloger, Handb. Naturg.* p. 438 (1842) ..... A. virgo.
Scops, *Gray, Gen. B.* iii. p. 553 (1845; *ex Möhring*) ..... A. virgo.

Range. The same as that of the single species of the genus.

1. Anthropoides virgo.

The Numidian Crane, *Albin, Nat. Hist. B.* iii. p. 78, pl. 83 (1740).
The Demoiselle of Numidia, *Edwards, Nat. Hist. B.* iii. p. 134, pl. 134 (1751).
La Grue de Numidie, *Briss. Orn. V.* p. 388 (1760).
Ardea virgo, *Linn. Syst. Nat.* i. 234 (1766); *Gm. Syst. Nat.* i. p. 619 (1788); *Shaw & Nodder, Nat. Misc.* xxiv. pl. 1041 (1813); *Vieill. Gal. Ois. Suppl.* pl. 18 (1825).
La Demoiselle de Numidie, *Daubent. Pl. Enl.* viii. pl. 241; *Buffon, Hist. Nat. Ois.* vii. p. 313, tab. 15 (1780).
Demoiselle Heron, *Lath. Gen. Syn.* iii. pt. i. p. 35 (1785).
Grus virgo, *Pall. Zoogr. Rosso-Asiat.* ii. p. 108 (1811); *Wagler, Syst. Av.*, Grus, sp. 2 (1827); *Naum. Vög. Deutschl.* ix. p. 386, pl. 232 (1838); *Temm. Man. d'Orn.* iv. p. 367 (1840); *Werner,*

Atlas, Grall. pl. 25 (1840); *Keys. u. Blas. Wirb. Eur.* p. lxix (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 267 (1840); *Muhle, Orn. Griechenl.* p. 93 (1844); *Schl. Rev. Crit.* p. ci (1844); *Brehm, Vogelf.* p. 291 (1855); *id. J. f. O.* 1857, p. 87; *Sundev. Sv. Fogl.* pl. 77. fig. 4 (1859); *Linderm. Vög. Griechenl.* p. 131 (1860); *Blasius, Ibis*, 1862, p. 71 (Heligoland); *Radde, Reis. Sibir., Vög.* p. 320 (1863; Tarei-nor); *Schl. Mus. Pays-Bas*, Ralli, p. 6 (1865); *Drake, Ibis*, 1867, p. 429 (Morocco); *Swinh. t. c.* p. 413 (Pekin); *Borggr. Vogelf. Norddeutschl.* p. 108 (1869); *Saund. Ibis*, 1869, p. 174; *Cullen, Field*, Sept. 11, 1869; *Elwes & Buckley, Ibis*, 1870, p. 333 (Dobrudscha); *Finsch & Hartl. Vög. Ostafr.* p. 673 (1870); *Swinh. P. Z. S.* 1871, p. 403 (Seuen-hwa-foo, migrant); *R. Gray, B. West Scotl.* p. 271 (1871: Kirkwall); *Harting, Handb. Br. B.* p. 146 (1872); *Shelley, B. Egypt*, p. 264 (1872); *Severtz. Turkest. Jevotn.* p. 68 (1873); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 1254 (1873); *Irby, B. Gibr.* p. 181 (1875); *Blanf. East. Persia*, ii. p. 286 (1876); *Dresser, Ibis*, 1876, p. 324; *Finsch, Ibis*, 1877, p. 52 (River Ob, Alakul); *id. Verh. z.-b. Ges. Ver. Wien*, xxix. p. 248 (1879: Tentek River, Agin-Su); *Dresser, B. Eur.* vii. p. 353, pl. 506 (1879); *Scully, Ibis*, 1881, p. 588 (Gilgit); *Tegetm. ed. Blyth's Mon. Cranes*, p. 26 (1881); *Seebohm, Ibis*, 1882, p. 226 (Astrakhan); *id.* 1883, p. 31 (Caucasus); *Severtz. t. c.* p. 80 (not in Pamir); *B. O. U. List Br. B.* p. 152 (1883); *Saunders, ed. Yarr. Brit. B.* p. 192 (1883); *Seeb. Hist. Brit. B.* ii. p. 275, pl. 36 (1884); *Radde, Orn. Cauc.* p. 293 (1884); *Przew. Ibis*, 1884, p. 243 (N. Thibet); *Reid, Ibis*, 1885, p. 252 (Morocco); *Pleske, Mem. Akad. Imp. St. Petersb.* (7) xxxvi. p. 49 (1888: Tschinas; Iskander Kul River); *Saunders, Man. Br. B.* p. 508 (1889); *Lilford, Ibis*, 1889, p. 337 (Cyprus); *id. Col. Fig. Br. B.* pt. 12 (1890); *Dresser, Ibis*, 1891, p. 369 (Erzeroum); *Gätke, Vogelw. Helgol.* p. 466 (1891); *Seeb. Ibis*, 1892, p. 21 (Heligoland).

Anthropoides virgo, *Vieill. N. Dict. d'Hist. Nat.* ii. p. 163 (1816); *Less. Traité*, p. 587 (1831); *Ménétr. Cat. raiss. Cauc.* p. 49 (1832); *Gould, B. Eur.* iv. pl. 272 (1837); *Jerd. Madr. Journ.* xi. p. 194 (1840); *Hodgs. Icon. ined. in Brit. Mus.* Grallæ, pl. 58 (no. 588); *id. in Gray's Zool. Misc.* p. 86 (1844); *Gray, List. Grallæ in Brit. Mus.* p. 75 (1844); *id. Cat. Mamm. etc. Nepal pres. Hodgs.* p. 133 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 274 (1849: Barrackpur); *Bp. Consp.* p. 101 (1854); *Heugl. Syst. Uebers.* p. 37 (1856); *Salvin, Ibis*, 1859, p. 355 (Zana); *Tristr. Ibis*, 1860, p. 76 (Algeria); *Irby, Ibis*, 1861, p. 243 (Oudh); *Hartm. J. f. O.* 1863, p. 462; *Wright, Ibis*, 1864, p. 142 (Malta); *Jerd. B. Ind.* iii. p. 666 (1864); *Antin. Cat. descr. Ucc.* p. 100 (1864); *Willemoes-Suhm, Zool. Gart.* 1865, p. 151 (Sweden); *Degl. et Gerbe, Orn. Eur.* ii. p. 279 (1867); *Loche, Expl. Sci. Algér.* ii. p. 120 (1867); *Beavan, Ibis*, 1868, p. 391 (Julpiguri); *Dyb. & Parv. J. f. O.* 1868, p. 367 (Dauria); *Doderl. Avif. Sicil.* p. 208 (1869); *Fritsch, Vög. Eur.* tab. 44. fig. 1 (1870); *Salvad. Faun. Ital., Ucc.* pp. 238, 320 (1871); *Saunders, Ibis*, 1871, p. 389 (S. Spain); *Gray, Hand-l. B.* iii. p. 25, no. 10092 (1871); *Hume, Str. F.* i. p. 235 (1873: Sind); *Adam, t. c.* p. 395 (Sambhur); *Tacz. J. f. O.* 1873, p. 100 (Kultuk), 1874, p. 336; *Ball, Str. F.* ii. p. 420 (1874: not in Chota Nagpur); *Butler, Str. F.* iv. p. 15 (1876: Guzerat); *Fairb. t. c.* p. 263 (Deccan); *Tacz. Bull. Soc. Zool. France*, i. p. 246 (1876); *Garrod, P. Z. S.* 1876, p. 277; *Butler, Str. F.* v. p. 232 (1877: Deesa, Oct. to March); *Davidson & Wenden, Str. F.* vii. p. 88 (1878: Deccan); *Hume, Str. F.* viii. p. 112 (1879); *Scully, t. c.*

pp. 352, 366 (Nepal Valley); *Butler, Cat. B. Sind etc.* p. 60 (1879); *id. Cat. B. S. Bomb. Pres.* p. 75 (1880); *Schmidt, P. Z. S.* 1880, p. 315; *Reid, Str. F.* x. p. 68 (1881: Lucknow); *Bidd. Ibis*, 1881, p. 95 (Gilgit); *Gigl. t. c.* p. 184; *Davidson, Str. F.* x. p. 320 (1882: Khandeish); *Forbes, P. Z. S.* 1882, p. 353; *Murray, Vertebr. Faun. Sind*, p. 234 (1884); *Bogd. Consp. Av. Imp. Ross.* p. 109 (1884); *Gigl. Avif. Ital.* p. 360 (1886); *Salvad. Elench. Ucc. Ital.* p. 240 (1887); *Taylor, Str. F.* x. p. 530 (1887: Orissa); *Gigl. Avif. Ital.* 1st Resoc. i. p. 557 (1889), ii. p. 644 (1890); *Brusina, Motr.* (*Orn. Croat.*) p. 58 (1890); *Fridvalsky, Av. Hung.* p. 127 (1891).

Scops virgo, *Gray, List Gen.* 1841, p. 86; *id. Gen. B.* iii. p. 553 (1845); *Reichenb. Handb., Fulic.* tab. cxxix. fig. 1237 (1852).

Philorchemon virgo, *Gloger, Handb. Naturg.* p. 438 (1842).

Grus ornata, *Brehm, Vogelf.* p. 291 (1855).

Grus (Anthropoides) virgo, *David & Oust. Ois. Chine*, p. 436 (1877).

Adult male. General colour above delicate slaty grey including the wing-coverts; bastard-wing, primary-coverts, and quills blackish, washed with grey; secondaries for the most part slate-colour, blackish towards the ends, the innermost ones immensely elongated; upper tail-coverts and tail slaty grey, somewhat blackish towards the ends; crown of head light pearly grey; lores and sides of the crown black like the rest of the sides of the face; nape, sides of neck, throat, and fore neck black, the feathers of the latter part being elongated, the grey of the back stretching upward on to the neck, but not reaching as far as the nape, the black of the neck intervening between the hind neck and crown; feathers under the eye white, as well as a distinct streak above the ear-coverts developing into a beautiful lateral white tuft of elongated white silky plumes; breast and remainder of under surface of body pearly grey; "bill dusky, olivaceous at the base, reddish at tip; feet black; iris crimson" (*Von Heuglin*). Total length about 33 inches, culmen 2·8, wing 19·8, tail 6·3, tarsus 7·5, middle toe and claw 3·5.

Young. Similar to the adult, but without the lengthened plumes of the inner secondaries; head and sides of face grey like the back, including the slightly elongated plumes of the ear-coverts; chin and throat also grey, the feathers of the upper neck all round blackish, the pointed feathers of the lower fore neck not elongated as in the adult.

Hab. Southern Europe, extending through Central Asia to Northern China, wintering in Northern and North-eastern Africa, and in N.W. India.

a. Juv. st.	Europe.	Purchased.
b, c. ♂ ♀ ad. sk.	Near Seville, Spain, April (*Howard Saunders*).	Tweeddale Coll.
d. ♂ ad. sk.	Cyprus, April 9 (*H. Guillemard*).	Lord Lilford [P.].
e. ♂ ad. sk.	Ordos, Central Asia (*Przewalsky*).	Seebohm Coll.
f. ♀ ad. sk.	Gilgit, Sept. (*J. Biddulph*).	Tweeddale Coll.
g. Ad. st.	India.	General Hardwicke [P.].

h. ♂ ad. sk.	Marwar, Oct. 10 (*G. King*).	Hume Coll.
i–n. ♂ ad. ; *o.* ♀ ad. sk.	Sambhur, Dec. (*R. M. Adam*).	Hume Coll.
p, q. ♂ ad. et imm. sk.	Delhi Distr., Dec. 27 (*A. O. H.*).	Hume Coll.
r. ♂ ♀ ad. sk.	Gurgaon Distr., Feb. 21 (*W. N. Chill*).	Hume Coll.
s. Ad. sk.	Bareilly, Jan.	Hume Coll.
t, u. Ad. sk.	Etawah.	Hume Coll.
v. Ad. sk.	Oudh, Dec.	Hume Coll.
w–z. Ad. sk.	Nepal.	Hodgson Coll.
a'. Ad. sk.	Native Sikhim, April (*L. Mandelli*).	Hume Coll.
b'. Ad. sk.	Khandeish.	India Museum.
c'. Skeleton.		
d'. Sternum.		Eyton Coll.

9. BALEARICA.

	Type.
Balearica, *Briss. Orn.* v. p. 511 (1760)	B. pavonina.
Geranarchus, *Gloger, Handb. Naturg.* p. 438 (1842)....	B. pavonina.

Range. Africa, ranging into Southern Europe occasionally, and perhaps to the Persian Gulf.

Key to the Species.

a. Bare sides of face parti-coloured, the upper part of the bare patch white, the lower pinkish, neck-feathers blackish ..... *pavonina*, p. 272.

b. Bare sides of face white with a line of vermilion on upper margin; neck light grey.

a'. Upper margins of bare face rounded and not produced to the region of the occiput ..... *chrysopelargus*, p. 274.

b'. Upper margin of bare face produced in a small triangle to the sides of the occiput ..... *gibbericeps*, p. 275.

1. Balearica pavonina.

The Crowned African Crane, *Edwards, Nat. Hist. B.* iv. p. 192, pl. 192 (1751: pt.).

L'Oiseau royal, *Briss. Orn.* v. p. 511, pl. xli. (1760).

Ardea pavonina, *Linn. Syst. Nat.* i. p. 233 (1766); *Gm. Syst. Nat.* i. p. 619 (1788); *Vieill. Gal. Ois. Suppl.* pl. 17 (1825).

Crowned Heron, *Lath. Gen. Syn.* iii. pt. i. p. 34 (1785).

Anthropoides pavonina, *Vieill. op. cit.* ii. p. 165 (1816); *id. Gal. Ois.* ii. pl. 257 (juv.); *Bennett, P. Z. S.* 1833, p. 118 (W. Africa).

Grus balearica, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 557 (1817).

Balearica pavonina, *Children in Denham & Clappert. Trav.* ii. App. p. 200 (1826: Lake Tchad); *Less. Traité d'Orn.* p. 588 (1831); *Gray, Gen. B.* iii. p. 553 (1845); *Rüpp. Syst. Uebers.* p. 120 (1845); *Bp. Consp.* ii. p. 102 (1854); *Heugl. Syst. Uebers.* p. 57 (1856); *Hartl. Orn. Westafr.* p. 218 (1857); *Tristr. Ibis*, 1860

p. 76 (R. Guerdh-El-Tharf, April); *Wright, Ibis*, 1864, p. 142 (not in Malta); *Antin. Cat. dessr. Uce.* p. 100 (1864); *Loche, Expl. Sci. Algér., Ois.* ii. p. 146 (1867); *Doderl. Avif. Sicil.* p. 208 (1869: accidental in Sicily); *Saund. Ibis*, 1871, p. 390; *Gray, Hand-l. B.* iii. p. 25, no. 10094 (1871); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 1258 (1873); *Ussher, Ibis*, 1874, p. 73 (R. Volta); *Schmidt, P. Z. S.* 1880, p. 316; *Gigl. Ibis*, 1881, p. 186; *Tegetm. ed. Blyth's Mon. Cranes*, p. 19 (1881); *Hartert, J. f. O.* 1886, p. 608 (Benue River); *Salvad. Elench. Uce. Ital.* p. 241 (1887); *Meyer, Abbild. Vogel-Skel.* Lief. xi. Taf. cvi. (1886).

Grus pavonina, *Wagler, Syst. Av.* Grus, sp. 1 (1827, pt.); *Schl. Mus. Pays-Bas*, Ralli, p. 7 (1867, pt.); *Hurley, P. Z. S.* 1867, p. 429; *Finsch & Hartl. Vög. Ostafr.* p. 667 (1870, pt.); *R. Gray, Ibis*, 1872, p. 201 (Ayr).

Anthropoides pavonina, *Bennett, P. Z. S.* 1833, p. 118 (W. Africa).

Geranarchus pavonina, *Gloger, Handb. Naturg.* p. 438 (1842).

Adult. General colour above, including the lower back, rump, and upper tail-coverts, black, the feathers pointed and having a slight green tinge; scapulars like the back; wing-coverts white, the inner greater coverts straw-coloured and composed of disintegrated plumes; bastard-wing and primary-coverts also white; primaries black, secondaries maroon-chestnut, the feathers of the innermost secondaries somewhat decomposed; tail-feathers black, with a greenish gloss; crown of head covered with a patch of velvety black plumes; occiput with a tuft of straw-like bristles tipped with black; lores and sides of face bare, with a line of sooty-black feathers from the sides of the hinder crown behind the ear-coverts; cheeks also bare; chin and upper throat sparsely covered with black down; lower throat with wattles; nape and neck all round silvery-grey, the feathers elongated and lanceolate, especially on the lower hind neck, throat, and fore neck; remainder of under surface of body dark slaty grey, with pearly-grey centres to the feathers, which are lanceolate in shape; under wing-coverts and axillaries white; quills below black, the secondaries maroon below: "bare sides of face particoloured, the lower part pinkish, the upper part white slightly shaded with pink; throat rather rosy; bill blackish, horn-coloured at tip; feet bluish black; iris whitish" (*von Heuglin*). Total length 37 inches, culmen 2·7, wing about 23, tail 9, tarsus 8.

Young. Blackish above, all the feathers broadly margined with rufous; head and neck sandy rufous; crown of head chestnut, mottled with black bases to the downy feathers; lores only bare: rest of sides of face and ear-coverts covered with isabelline down; the quills as in the adult, but with black ends to the maroon secondaries, all the white wing-coverts broadly edged with rufous and with black subterminal markings; the feathers of the under surface blackish, with broad sandy-buff margins.

Hab. West Africa from Senegal to the Lakes of the Sudan and the rivers of the West Coast, extending to the lakes of Abyssinia and the Upper Nilo district. In the Leiden Museum is a specimen from Senaar, which is very small: wing 9·9 inches, tarsus 6·9.

a, *b*. Juv. st.	West Africa.	Old Coll.
c. Ad. sk.	Accra, July (*J. Smith*).	Shelley Coll.
d. Sternum.		Eyton Coll.

2. Balearica chrysopelargus.

The Crowned African Crane, pt., *Edwards, Nat. Hist. B.* iv. p. 192, pl. 192 (1751).
L'Oiseau Royale mâle, *Daubent. Pl. Enl.* viii. pl. 265.
Ardea chrysopelargus, *Licht. Cat. rer. Nat. Hamb.* p. 29 (1793).
Anthropoides regulorum, *Bennett, P. Z. S.* 1833, p. 118.
Grus regulorum, *Licht. Kat. Vögel Kaffernl.* p. 19 (1842); *Finsch & Hartl. Vög. Ostafr.* p. 669 (1870).
Balearica regulorum, *Gray, List Gralle Brit. Mus.* p. 75 (1844); *id. Gen. B.* iii. p. 553 (1845); *J. E. Gray, Knowsl. Menag.* pl. 13 (1851); *Reichenb. Handb., Fulic.* tab. ccxvi. figs. 2855–56 (1852); *Bp. Consp.* ii. p. 102 (1854); *Kirk, Ibis*, 1864, p. 331 (Zambesi); *Layard, B. S. Afr.* p. 304 (1867); *Gurney, Ibis*, 1868, p. 255 (Natal); *Layard, Ibis*, 1869, p. 376 (egg: Mahura's country); *Ayres, Ibis*, 1871, p. 264 (Vaal River); *Gray, Hand-l. B.* iii. p. 25, no. 10095 (1871); *Gurney in Anderss. B. Dam. Ld.* p. 279 (1872); *Ayres, Ibis*, 1873, p. 286 (Mooi River, breeding), 1874, p. 106 (Potchefstroom); *Buckley, t. c.* p. 389 (Transvaal); *Garrod, P. Z. S.* 1876, p. 277; *Barratt, Ibis*, 1876, p. 209 (Lydenburg); *Ayres, Ibis*, 1877, p. 348 (Transvaal); *Bocage, Orn. Angola*, p. 435 (1881: Humbe); *Schmidt, P. Z. S.* 1880, p. 315; *Holub & Pelz. Beitr. Orn. Sudafr.* p. 256 (1882: C. Transvaal; Orange Free State); *Shelley, Ibis*, 1882, p. 363 (Mashona-land).
Grus pavonina, pt., *Schl. Mus. Pays-Bas*, Ralli, p. 7 (1865).
Ardea pavonia, *Chapm. Trav. S. Afr.* ii. App. p. 417 (1868).
Balearica chrysopelargus, *Tegetm. P. Z. S.* 1880, p. 93; *id. ed. Blyth's Mon. Cranes*, p. 15 (1881); *Butler, Feilden, & Reid, Zool.* 1882, p. 342 (Newcastle); *Reid, Ibis*, 1883, p. 225 (Natal, nesting); *Sharpe, ed. Layard's B. S. Afr.* p. 629 (1884).

Adult. Similar to *B. pavonina*, but distinguished by its dark slaty-grey colour, the neck all round being slaty grey like the rest of the under surface, and not pearly grey: "bill black; tarsi and feet black; iris light ash-colour" (*T. Ayres*): bare sides of face white, with a triangular band of vermilion above the bare white face; throat-wattle also vermilion (*Mus. Lugd.*). Total length 34 inches, culmen 2·6, wing 2·25, tail 9, tarsus 8, middle toe and claw 4·4.

Young. Blackish above, all the feathers broadly margined with rufous; head and neck sandy rufous; crown of head chestnut, mottled with black bases to the downy feathers; lores only bare; rest of sides of face and ear-coverts covered with isabelline down; quills as in the adult, but with black ends to the maroon secondaries; all the white wing-coverts broadly edged with rufous, with black subterminal markings; feathers of the under surface blackish, with broad sandy-buff margins: "bill black, the base of the lower mandible pale; bare skin between the bill and the eye black, the adjacent space, which is occupied by the wattles in the adult, thickly clothed with short yellowish-white down; legs and feet ashy black; iris light ash-colour" (*T. Ayres*).

Hab. South Africa below the Zanzibar and the Quanza rivers. A specimen of this species is in the Leiden Museum from "Bender Bouchir *, Persian Gulf." I cannot find this locality in the Atlas, and if the specimen really came from the Persian Gulf, I think it must have lived there in confinement.

a. Ad. sk.	South Africa.	Shelley Coll.
b. Ad. sk.	South-east Africa.	Old Coll.
c. Juv. (head).	Ingagane River, Natal, June 8.	Capt. Savile Reid [C.].
d, e. ♂ ♀ ad. sk.	Transvaal.	F. A. Barratt, Esq. [P.].
f. Juv. sk.	Potchefstroom, Transvaal, April 17 (*T. Ayres*).	Sharpe Coll.
g. Ad. sk.	Zambesi.	Sir J. Kirk [P.].

3. Balearica gibbericeps.

Balearica regulorum (*nec Bennett*), *Böhm, J. f. O.* 1885, p. 52 (Gonda); *Fischer, t. c.* p. 116 (Komboko, Kilimanjaro; Zanzibar); *Matschie, J. f. O.* 1887, p. 145 (Tongo; Lufuka; Lofunso Valley; Boga; Likulwe; Upämba Lake).

Grus pavonina (*nec L.*), *Böhm, J. f. O.* 1882, p. 185 (Kakoma).

Grus regulorum (*nec Bennett*), *Fischer, Zeitschr. ges. Orn.* i. p. 386 (1884: Maurui, Sigirari, Naivascha).

Balearica pavonina (*nec L.*), *Reichenow, J. f. O.* 1887, p. 48 (Kibaia; Victoria Nyanza; E. of Kagehi; Rovuma River); *Emin, J. f. O.* 1891, p. 58 (Ugogo).

Balearica chrysopelargus (*nec Licht.*), *Shelley, Ibis*, 1888, p. 295 (Kilimanjaro).

Balearica gibbericeps, *Reichen. J. f. O.* 1892, p. 125.

Balearica gibberifrons (*lapsu*), *Reichen. t. c.* Index, p. 462.

Adult. Very similar to *B. chrysopelargus* and having the neck-feathers ashy grey as in that species, but distinguished by the shape of the bare patch on the sides of the face, which, instead of being rounded on its upper margin, is produced into a triangular point, extending to the sides of the occiput and nearly uniting behind the velvety crown. Total length about 37 inches, culmen 2·4, wing 4·5, tail 9·7, tarsus 7·3, middle toe and claw 4·1. (*Mus. F. J. Jackson.*)

Hab. Eastern Africa.

The following fossil species of Cranes have also been described:—

1. GRUS (*antea*, p. 249).

1. Grus primigenia.

Grus primigenia, *Milne-Edwards, Ois. Foss. France*, ii. p. 33 (1869); *Lydekker, Cat. Foss. B.* p. 161 (1891).

From the Pliocene of France and Italy.

* Can this be intended for Bushire?

2. **Grus melitensis.**

Grus melitensis, *Lydekker*, *t. c.* p. 162.

From the Pleistocene of Malta.

3. **Grus pentelici.**

Grus pentelici, *Gaudry*, *C. R.* liv. p. 504 (1861); *Lydekker*, *t. c.* p. 164.

From the Lower Pliocene of Greece.

4. **Grus excelsa.**

Grus excelsa, *Milne-Edwards*, *Ois. Foss. France*, ii. p. 24 (1869); *Lydekker*, *t. c.* p. 164 (1891).

From the Upper Oligocene of Allier, France.

5. **Grus problematica.**

Grus problematica, *Milne-Edwards*, *t. c.* p. 30; *Lydekker*, *t. c.* p. 164.

From the Upper Oligocene of Allier, France.

6. **Grus hordwelliensis.**

Grus hordwelliensis, *Lydekker*, *t. c.* p. 165.

From the Lower Oligocene of Hordwell, Hampshire.

7. **Grus princeps.**

Palæogrus princeps, *Portis*, *Mem. R. Ac. Torino* (2) xxxvi. p. 362 (1885).
Grus princeps, *Lydekker*, *t. c.* p. 165 (1891).

From the Lower Oligocene of Italy.

8. **Grus turfa.**

Grus turfa, *Portis*, *Mem. R. Ac. Tor.* (2) xxxvi. p. 372, pl. 2. figs. 1–13 (1885).

From Peschiera, Italy.

9. **Grus proavus.**

Grus proavus, *Marsh*, *Am. J. Sci.* (3) iv. p. 261 (1872); *Coues*, *Key N. Amer. B.* 2nd ed. p. 823 (1884).

From the Post-pliocene of New Jersey.

10. **Grus haydeni.**

Grus haydeni, *Marsh*, *Am. J. Sci.* xlix. p. 214; *Coues*, *Key N. Amer. B.* 2nd ed. p. 823 (1884).

From the Pliocene of Nebraska.

2. GERANOPSIS.

Type.
Geranopsis, *Lydekker, Cat. Foss. B.* p. 166 (1891) .... G. hastingsiæ.

1. Geranopsis hastingsiæ.

Geranopsis hastingsiæ, *Lydekker, t. c.* p. 166.

From the Upper Eocene of Hordwell, Hampshire.

2. Geranopsis elatus.

Geranopsis elatus, *Milne-Edwards, C. R.* ii. *Intern. Orn. Congr.* p. 72 (1892).

From the Oligocene of Southern France.

3. ALETORNIS.

Type.
Aletornis, *Marsh, Am. Journ. Sci.* (3) iv. p. 256 (1872) .. A. nobilis.

1. Aletornis nobilis.

Aletornis nobilis, *Marsh, Am. Journ. Sci.* iv. 1872, p. 256; *Coues, Key N. Amer. B.* p. 823 (1872).

From the Eocene of Wyoming.

2. Aletornis pernix.

Aletornis pernix, *Marsh, Am. Journ. Sci.* iv. 1872, p. 256; *Coues, Key N. Amer. B.* p. 824 (1872).

From the Eocene of Wyoming.

3. Aletornis venustus.

Aletornis venustus, *Marsh, Am. Journ. Sci.* iv. 1872, p. 257; *Coues, Key N. Amer. B.* p. 824 (1872).

From the Eocene of Wyoming.

4. Aletornis gracilis.

Aletornis gracilis, *Marsh, Am. Journ. Sci.* iv. 1872, p. 258; *Coues, Key N. Amer. B.* p. 824 (1872).

From the Eocene of Wyoming.

5. Atelornis bellus.

Aletornis bellus, *Marsh, Am. Journ. Sci.* iv. 1872, p. 258; *Coues, Key N. Amer. B.* p. 824 (1872).

From the Eocene of Wyoming.

Family VI. PSOPHIIDÆ.

Palate schizognathous.

Nostrils holorhinal.

Rectrices 10.

Cæca 2 to 2¼ inches long (Garrod, P. Z. S. 1876, p. 277).

No aftershaft to the contour-feathers.

Sternum with no notch on posterior margin.

No occipital foramina.

Trachea enormously long in the males, extending outside the abdomen nearly to the anus (*cf.* Hancock, *loc. infra cit.*).

Ambiens muscle present.

Femoro-caudal absent. Accessory femoro-caudal present, as also the semitendinosus and the accessory semitendinosus.

Long lateral bare tracts on sides of neck.

Plumage soft, the under tail-coverts especially long and lax.

Bill shorter than the head, the nasal groove occupying about half of the maxilla; the nostrils ovate and pervious, with a posterior membrane.

Wings with the inner secondaries as long as the primaries.

Nest on the ground.

Eggs two, light ash-colour (*cf.* Hancock, *l. c.*).

Nestling covered with chestnut down, streaked with pearly grey.

(*Cf.* Seebohm, Classif. B. p. 40; Stejn. Stand. Nat. Hist. Birds, p. 123; Sharpe, Classif. B. p. 74.)

1. PSOPHIA*.

Type.

Psophia, *Linn. Syst. Nat.* i. p. 263 (1766) ..... P. crepitans.

Range. Confined to South America.

Key to the Species.

a. Black of the neck and mantle separated from the black of the lower back and rump by the tawny or ochraceous colour of the upper back.

a'. Wing-coverts black without bronzy gloss, except a little on the greater wing-coverts; scale-like feathers of lower throat glossy violet or purple, followed by steel-green with coppery reflections on the fore neck ..... *crepitans*, p. 279.

* *Cf.* Geoffroy, Bull. Sci. Soc. Philom. i. pp. 50–51 (1797); Blainv. Nouv. Bull. Sci. Soc. Philom. 1825, p. 126; Traill, Mem. Werner. Soc. N. H. v. pt. 2, pp. 523–532 (1826); Hancock, in Charlesw. Mag. new ser. ii. p. 490 (1838).

Psophia cantatrix.

Psophia cantatrix, *Blasius, J. f. O.* 1884, p. 203 (*ex Boeck, MSS.*).

Hab. Bolivia.

Professor Blasius, in his account of this species, of which no specimen appears to have come to Europe, does not state to which species he considers *P. cantatrix* to be allied.

b'. Wing-coverts black with a bronzy or purplish gloss; scale-like feathers of the fore neck and chest dull purplish ..... *napensis*, p. 280.

b. Black of the neck and mantle continuous with the black of the lower back and rump.

c'. Inner wing-coverts and inner secondaries white ..... *leucoptera*, p. 280.

d'. Inner wing-coverts and inner secondaries ochraceous ..... *ochroptera*, p. 281.

c. Mantle and upper back dark chocolate-brown with greenish reflections; lower back and rump black; inner secondaries glossed with bright green ..... *viridis*, p. 281.

1. Psophia crepitans.

Le Faisan des Antilles, *Briss. Orn.* i. p. 269 (1760).

Psophia crepitans, *Linn. S. N.* i. p. 263 (1766); *Gm. S. N.* i. p. 720 (1788); *Vieill. N. Dict. d'Hist. Nat.* i. p. 188 (1816); *id. Gal. des Ois.* iii. pl. 162 (1834); *Gray, List Grallæ Brit. Mus.* p. 73 (1844); *id. Gen. B.* iii. p. 550 (1846); *Cab. in Schomb. Reis. Guian.* iii. p. 751 (1848); *Bp. Consp. Av.* ii. p. 102 (1854); *Burm. Th. Bras.* iii. p. 399, pt. (1856); *Scl. & Salv. P. Z. S.* 1867, p. 592; *Gray, Hand-l. B.* iii. p. 23, no. 10072 (1871); *Pelz. Orn. Bras.* pp. 298, 455 (1871: Barra do Rio Negro; Maribatanas; Cocuy; Forte do Rio Branco; Serra Carauman); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 141 (1873); *Blasius, J. f. O.* 1884, p. 204; *Tacz. Orn. Pérou*, iii. p. 385 (1886: Yquitos); *Salvin, Ibis*, 1886, p. 177.

L'Agamie de Cayenne, *Daubent. Pl. Enl.* v. pl. 169.

L'Agami, *Buff. Hist. Nat. Ois.* iv. p. 487, pl. xxiii. (1778).

Gold-breasted Trumpeter, *Lath. Gen. Syn.* ii. pt. 2, p. 793, pl. lxviii. (1783).

Adult male. General colour above as far as the middle of the back black, the feathers of the mantle somewhat glistening; the upper back and scapulars dark ochre, washed with chestnut on the border of the black mantle; lower back, rump, and upper tail-coverts slaty black; wing-coverts, bastard-wing, primary-coverts, and quills blackish brown, the former with black margins; secondaries bluish grey, dark brown towards the base of the inner web, and washed with ochre near the shafts, the innermost secondaries light grey, somewhat drooping and disintegrated; tail-feathers black; crown of head and neck velvety black, including also the throat; the feathers of the lower throat purple with shining purple tips, with scarcely any tinge of steel-green, but the feathers of the fore neck distinctly steel-blue and green with very little purplish reflections, but the lower feathers varied with reddish copper; remainder of under surface from the fore neck downwards, including the under wing-coverts and under tail-coverts, black. Total length about 21 inches, culmen 1·45, wing 10·7, tail 5, tarsus 5, middle toe and claw 2·8.

Adult female. Similar to the male in colour. Total length 21 inches, culmen 1·5, wing 10·5, tail 4·4, tarsus 4·8, middle toe and claw 3·6.

Nestling. Covered with dense down of a light chestnut-colour,

with a triple band of pearly grey down the body and a double line of the same on the head; a central line of sooty brown on the hind neck, extending round and forming a large patch on the fore neck; sides of face vinous; throat isabelline grey; abdomen whitish.

The specimen from the Rio Negro has rather more chocolate-brown wings, and on the median wing-coverts there is a slight purplish tinge.

Hab. British Guiana, extending to the Rio Negro in Amazonia, and, according to Taczanowski, to Yquitos.

a. Ad. st.	British Guiana.	Sir R. Schomburgk [P.].
b. Ad. sk.	British Guiana.	Sir R. Schomburgk [P.].
c. ♂ ad. sk.	Camacusa, British Guiana, July 11 (*H. Whitely*).	Salvin-Godman Coll.
d. ♀ ad. sk.	River Atápurow, British Guiana, Jan. 27 (*H. Whitely*).	Salvin-Godman Coll.
e. Pull. sk.	River Takutu, British Guiana, Feb. 11 (*H. Whitely*.)	Salvin-Godman Coll.
f. ♀ ad. sk.	Rio Negro, Brazil, Oct. 30 (*J. Natterer*).	Salvin-Godman Coll.

2. Psophia napensis.

Psophia obscurus (*nec Pelz.*), *Gray, Hand-l. B.* iii. p. 23, no. 10076 (1871).

Psophia napensis, *Scl. & Salv. Nomencl. Av. Neotrop.* pp. 141, 162 (1873); *Blasius, J. f. O.* 1884, p. 204.

Adult male. Similar to *P. crepitans*, but with the light colour of the middle back entirely rufous ochre, and not so pale as in *P. crepitans*, the pale inner secondaries more ashy grey and not so bluish. The colour of the metallic feathers on the throat is a dull purple, the steel-green and coppery reflections are almost entirely absent. Total length about 19 inches, culmen 1·5, wing 11, tail 4·3, tarsus 4·35, middle toe and claw 2·5.

Hab. Ecuador.

a. Ad. st.	Rio Napo, Ecuador.	Purchased.
b. ♂ ad. sk.	Rio Napo, Ecuador.	Salvin-Godman Coll.
c, d. Ad. sk.	Sarayacu, Ecuador (*C. Buckley*).	Salvin-Godman Coll.

3. Psophia leucoptera.

Psophia leucoptera, *Spix, Av. Bras.* ii. p. 67, pl. 84 (1825); *Gray, Gen. B.* iii. p. 550, pl. 148 (1846); *Schl. Handl. Dierk.* tab. 7 (1857); *Scl. & Salv. P. Z. S.* 1867, p. 592; *Pelz. Orn. Bras.* pp. 299, 455 (1871: Rio Madeira; Rio Solomoes); *Gray, Hand-l. B.* iii. p. 23, no. 10074 (1871); *id. P. Z. S.* 1873, p. 308 (Chamicuros); *Blasius, J. f. O.* 1884, p. 206.

Adult female. General colour above blackish chocolate; wing-coverts like the back, the greater series broadly tipped with steel-blue or purple, the inner ones white like the inner secondaries; remainder of quills black; tail black; head and neck all round covered with close-set velvety-black plumes; remainder of under

surface of body black, with metallic plumes of dull purple on the lower throat and fore neck. Total length about 20 inches, culmen 1·6, wing 10·6, tail 4·3, tarsus 5·2, middle toe and claw 2·8.

Hab. Upper Amazonia and Peru.

a.	♀ ad. sk.	Cosnipata, Peru, Oct. 6 (*H. Whitely*).	Salvin-Godman Coll.

4. Psophia ochroptera.

Psophia ochroptera, *Pelz. Sitz. k. Akad. Wien*, xxiv. p. 371 (1857; *ex Natt. MSS.*) (Barcellos); *Scl. & Salv. P. Z. S.* 1867, p. 592 (Rio Negro); *Gray, Hand-l. B.* iii. p. 23, no. 10073 (1871); *Pelz. Orn. Bras.* pp. 298, 455 (1871); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 141 (1873); *Blasius, J. f. O.* 1884, p. 204.

Adult. Similar to *P. leucoptera*, but with bronzy-greenish reflections on the greater coverts, dull purplish feathers on the lower throat and fore neck, having a slight coppery-bronze reflection on the latter, and easily distinguished by the pale ochre-colour of the inner greater coverts and inner secondaries. Total length about 19 inches, culmen 1·5, wing 10·5, tail 4·3, tarsus 5·7, middle toe and claw 2·8.

Hab. Right bank of Rio Negro.

a.	Ad. st.	Rio Negro.	Wallace Coll.
b.	Ad. sk.	Rio Negro (*J. Natterer*).	Salvin-Godman Coll.

5. Psophia viridis.

Psophia viridis, *Spix, Av. Bras.* ii. p. 66, pl. lxxxiii. (1825: Villa Nuova, R. Amazon); *Gray, Gen. B.* iii. p. 550 (1846); *Pelz. Orn. Bras.* pp. 299, 455 (1871); *Gray, Hand-l. B.* iii. p. 23, no. 10075 (1871); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 141 (1873); *Blasius, J. f. O.* 1884, p. 204.

Psophia obscura, *Pelz. Sitz. k. Akad. Wien*, xxiv. p. 373 (1857; *ex Natt. MSS.*); *Scl. & Salv. P. Z. S.* 1867, p. 592 (Right bank of Amazon near Para); *Gray, Hand-l. B.* iii. p. 23, no. 10076 (1871); *Pelz. Orn. Bras.* pp. 299, 455 (1871: Para); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 141 (1873); *Blasius, J. f. O.* 1884, p. 205.

Adult. General colour above blackish chocolate glossed with oily-green; lower back, rump, upper tail-coverts, and tail black; wing-coverts dark chocolate, with brighter green ends terminating in purple tips on the greater series; bastard-wing, primary-coverts, and quills blackish, the inner primaries and secondaries dark chocolate-brown, externally bright green; head and neck all round black, with bright purplish reflections, the scale-like feathers on the fore neck tipped with dusky purple; remainder of under surface from the chest downwards black; under wing-coverts and quill-lining blackish brown. Total length 17 inches, culmen 1·4, wing 11, tail 4·2, tarsus 5·25, middle toe and claw 2·5. (*Mus. Lugd.*)

Hab. Amazonia from Para extending up the right bank of the Rio Madeira to Rio Mamoré. I have seen one of the typical specimens of *Psophia obscura* in the Leiden Museum, and could not find any characters distinguishing it from *P. viridis*.

Family VII. OTIDIDÆ.

Palate schizognathous.

Nasals holorhinal.

Rectrices 16 to 20.

Sternum with two notches on each side of the posterior margin.

Cæca present.

Oil-gland absent.

An aftershaft to the contour-feathers.

A gular pouch (in some species).

Ambiens muscle present. Femoro-caudal absent. Accessory femoro-caudal, semitendinosus, and accessory semitendinosus present.

No lateral bare tract on side of neck.

Bill rather flattened and obtuse, the nostrils ovate and pervious; the frontal feathers descending to the hinder margin of the nostrils.

Wings with the secondaries almost as long as the primaries.

Tarsi longer than middle toe and claw, covered with reticulate scales, the toes scaled across, the nails flattened, with a horny lateral edge; no hallux.

Nest a slight depression under a tuft of grass, with or without lining.

Eggs double-spotted, olive, with obsolete brown shading.

Nestlings covered with light down mottled with black, and able to run soon after birth.

Key to the Genera.

a. Feathers of the lower throat and fore neck not conspicuously elongated so as to form an overhanging shield over the crop.

a'. Cheeks with long whisker-like feathers, not spatulate at the ends, the shafts of these plumes provided with segregated barbs; tarsus short, the wing being about four times the length of the tarsus; bill short and high; culmen less than middle toe and claw .. 1. OTIS, p. 283.

b'. Cheeks without whisker-like feathers; a crest of elongated plumes on the nape or hind neck.

a''. A full tuft of elongated plumes on the nape and hind neck; tarsus very short, the wing four times its length ..... 2. TETRAX, p. 287.

b''. Crest confined to the nape.

a'''. Nuchal crest composed of long coloured plumes; tarsus long;

wing about three and a half times as long as the tarsus ..... 3. LOPHOTIS, p. 290.

b'''. Nuchal crest composed of shorter, mostly black plumes.

*a*⁴. Tarsus long; the wing about 3½ times length of tarsus; outer aspect of wings white..... 4. COMPSOTIS, p. 293.

*b*⁴. Tarsus short; the wing more than four times length of tarsus ..... 5. HETEROTETRAX, [p. 296.

c'. Cheeks without whisker-like feathers; no conspicuous nuchal tuft of elongated plumes; the occiput and nape without visible crest.

c''. Bill long, the culmen longer than the middle toe and claw..... 6. NEOTIS, p. 298.

d''. Bill long, but the culmen equal to the middle toe and claw..... 7. LISSOTIS, p. 304.

e''. Bill short, the culmen shorter than middle toe and claw ..... 8. TRACHELOTIS, p. 308.

d'. Cheeks with elongated plumes, spatulated at the ends and recurved; quills attenuated at the ends ..... 9. SYPHEOTIS, p. 312.

b. Feathers of lower throat and fore neck conspicuously elongated, so as to form an overhanging shield to the crop.

e'. Crown of head crested, as well as the nape and hind back; feathers of throat elongated as well as those of the fore neck; tarsus very long, nearly half the length of the wing (more than two thirds the length of the latter) ..... 10. HOUBAROPSIS, p. 315.

f'. Crown of head with a long median erectile crest of narrow feathers; on the sides of the neck a large ruff of soft feathery plumes; tarsus short; wing more than four times the length of the tarsus ..... 11. HOUBARA, p. 318.

g'. Crown of head strongly crested, but not the hind neck; feathers of the throat elongated as well as those of the fore neck; tarsus rather long; wing more than three times the length of the tarsus..... 12. EUPODOTIS, p. 322.

1. OTIS.

Type.

Otis, *Linn. Syst. Nat.* i. p. 264 (1766) ..... O. tarda.

Range. Southern and Central Europe, extending across Central Asia to Eastern Siberia, Northern China, and North-western India.

1. Otis tarda*.

The Bustard, *Albin, Nat. Hist. B.* iii. p. 36, pls. 38, 39 (1740).
The Bustard Cock, *Edwards, Nat. Hist. B.* ii. p. 73, pl. 73 (1747).
The Hen Bustard, *Edwards, t. c.* p. 74, pl. 74 (1747).
L'Outarde, *Briss. Orn.* v. p. 18 (1760); *Daubent. Pl. Enl.* ii. pl. 245; *Buff. Hist. Nat. Ois.* ii. p. 1, pl. 1 (1781).
Great Bustard, *Lath. Gen. Syn.* ii. pt. 2, p. 796 (1783); *Yarrell, Brit. B.* ii. p. 362 (1843).
Otis tarda, *Linn. Syst. Nat.* i. p. 264 (1766); *Gm. Syst. Nat.* i. p. 722 (1788); *Vieill. N. Dict. d'Hist. Nat.* xxiv. p. 285 (1818); *Temm. Man. d'Orn.* ii. p. 505 (1820); *Roux, Orn. Provenç.* pl. 264 (1825); *Pall. Zoogr. Rosso-Asiat.* ii. p. 96 (1826, pt.); *Werner, Atlas, Coureurs,* pls. 1, 2 (1827); *Ménétr. Cat. rais. Cauc.* p. 48 (1832); *Naum. Vög. Deutschl.* vii. Taf. 167, 168 (1834); *Rüpp. Mus. Senck.* ii. p. 245 (1837); *Gould, B. Eur.* iv. pl. 267 (1837); *Crespon, Orn. Gard,* p. 342 (1840); *Keys. & Blas. Wirb. Eur.* p. lxvii (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 225 (1840); *Selys-Longch. Faune Belge,* p. 119 (1842); *Muhle, Beitr. Orn. Griechenl.* p. 89 (1844); *Schl. Rev. Crit.* p. lxxix (1844); *Gray, List Gralle Brit. Mus.* p. 55 (1844); *id. Gen. B.* iii. p. 532 (1845); *Hewits. Eggs Brit. B.* ii. p. 245, pl. 66. fig. 1 (1846); *Thomps. B. Irel.* ii. p. 77 (1850); *Kjærb. Orn. Dan.* pl. 29. fig. 1 (1851); *Macgill. Brit. B.* iv. p. 30 (1852); *Schl. Vog. Nederl.* pls. 203, 204 (1854); *Bp. Compt. Rend.* xliii. p. 416 (1856); *Sundev. Sv. Fogl.* Taf. lvi. figs. 1, 2 (1856); *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 438 (1859); *Tristr. Ibis,* 1859, p. 36 (Palestine); *Lilford, Ibis,* 1860, p. 239 (Bay of Butrinto; Morea, breeding); *Linderm. Vög. Griechenl.* p. 127 (1860); *Schl. Dier. Nederl. Vog.* pl. xx. fig. 5 (1861); *A. Newt. Ibis,* 1862, pp. 107–127 (gular pouch); *Gray, List Brit. B.* p. 133 (1863); *Gould, B. Gt. Brit.* iv. pl. 17 (1864); *Wright, Ibis,* 1864, p. 140 (Malta); *Sperling, t. c.* p. 286 (Gulf of Arta); *Cullen, Ibis,* 1865, p. 143; *More, t. c.* p. 429; *Flower, P. Z. S.* 1865, p. 747; *Schl. Mus. Pays-Bas,* Cursores, p. 2 (1865); *Marchand, Rev. Zool.* 1866, p. 265; *Bolton, Zool.* 1865, p. 9442; *Tegetm. Zool.* 1866, p. 144; *Flower, t. c.* p. 189; *Lilford, Ibis,* 1866, p. 381 (Spain); *Degl. & Gerbe, Orn. Eur.* ii. p. 95 (1867); *Hartm. Zool. Gart.* 1867, p. 57; *Loche, Expl. Sci. Algér., Ois.* ii. p. 247 (1867); *Tristr. Ibis,* 1868, p. 321 (Palestine); *Smith, t. c.* p. 451 (Portugal); *Saunders, Ibis,* 1869, p. 185 (S. Spain, breeding); *Borggr. Vogelf. Norddeutschl.* p. 105 (1869); *Doderl. Avif. Sicil.* p. 170 (1869); *Drake, Ibis,* 1869, p. 151 (Morocco); *Krabbe, Ann. & Mag. Nat. Hist.* (4) iv. p. 47, pl. 3 (1869); *Fritsch, Vög. Eur.* tab. 36. fig. 5 (1870); *Stevenson, B. Norf.* ii. pp. 1–42 (1870); *Elwes & Buckley, Ibis,* 1870, p. 329 (Turkey; Dobrudscha); *Saunders, Ibis,* 1871, p. 384 (Spain); *Hume, t. c.* p. 410 (Murdan); *Salvad. Faun. Ital., Ucc.* p. 195 (1871); *R. Gray, B. W. Scotl.* p. 247 (1871); *Gray, Hand-l. B.* iii. p. 7, no. 9913 (1871); *G. C. Taylor, Ibis,* 1872, p. 232 (Crimea); *Harting, Handb. Brit. B.* p. 41 (1872); *Dresser, B. Eur.* vii. p. 369, pl. 508 (1872); *Severtz. Turkest. Jevotn.* p. 68

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* The following is an extinct species of Bustard :—

Otis affinis.

Otis affinis, *Lydekker, Cat. Foss. B.* p. 168 (1891).

From the Middle Miocene of Bavaria.

(1873; breeding); *Garrod, P. Z. S.* 1874, pp. 471, 673; *Irby, B. Gibr.* p. 147 (1875); *Danf. & Harvie-Brown, Ibis*, 1875, p. 418 (Transylvania); *Dresser, Ibis*, 1876, p. 326; *Fallon, Ois. Belg.* p. 143 (1875); *Blanf. East. Persia*, ii. p. 287 (1876); *Finsch, Ibis*, 1877, p. 49 (Tarik); *Danf. t. c.* p. 273 (Asia Minor); *Tacz. Bull. Soc. Zool. France*, ii. p. 154 (1877: Poland); *Danf. Ibis*, 1878, p. 34; *Hume & Marsh. Game-B. Ind.* i. p. 1, pl. i. (1878); *Hume, Str. F.* viii. p. 111 (1879); *Boyd. B. Cauc.* p. 148 (1879); *Finsch, Verh. z.-b. Ges. Wien*, xxix. p. 241 (1879: Omsk, May; Saissan, Nov.); *Harting, Zool.* 1880, p. 252; *Eagle Clarke, Vertebr. Faun. Yorksh.* p. 65 (1881); *W. A. Forbes, Ibis*, 1881, p. 22; *Seeb. Ibis*, 1882, p. 220 (Astrachan), 1883, p. 27 (Caucasus); *B. O. U. List Brit. B.* p. 153 (1883); *Lilford, Ibis*, 1883, p. 233 (Seville); *Saunders, ed. Yarr. Brit. B.* iii. p. 193 (1883); *Chapm. Ibis*, 1884, p. 169; *Seeb. Hist. Brit. B.* ii. p. 581, pl 22 (1884); *Saunders, Ibis*, 1884, p. 388 (Pyrenees); *Tristr. Faun. & Flor. Palest.* p. 127 (1884); *Radde, Orn. Cauc.* p. 60 (1884); *Reid, Ibis*, 1885, p. 252 (Morocco); *Schiavuzzi, Zeitschr. ges. Orn.* iii. p. 183 (1886: Istria); *Giglioli, Avif. Ital.* p. 362 (1886); *Salvad. Elench. Ucc. Ital.* p. 202 (1887); *Tait, Ibis*, 1887, p. 383 (Portugal); *Lilford, Journ. North. Soc.* iv. p. 267 (1887); *Pleske, Mém. Acad. Imp. St. Pétersb.* (7) xxxvi. p. 50 (1888); *Guillem. Ibis*, 1888, p. 98; *Jacobi & Wangelin, Monatschr. Schutze Vogelw.* 1889, pp. 409–432, pl. 1; *Saunders, Man. Brit. B.* p. 509 (1889); *Reichen. Syst. Verz. Vög. Deutschl.* p. 45 (1889); *Lilford, Ibis*, 1889, p. 337 (Cyprus); *Gigl. Avif. Ital.* 1st Resoc. p. 557 (1889); *id.* 2nd Resoc. p. 657 (1890); *Sharpe, Tr. Linn. Soc.* (2) v. pt. 3, p. 87 (1889: Bala Murghab); *Brusina, Motr. (Orn. Croatica)*, p. 84 (1890); *Tegetm. Field*, lxxv. p. 891 (1890); *A. C. Smith, Wilts Mag.* xxv. p. 359 (1891); *Tuck, Trans. Norf. & Norw. Soc.* v. p. 206 (1891); *Harting, Zool.* xlix. p. 103 (1891); *Reiser, Vog. Landesmus. Sarajevo*, p. 105 (1891); *Madarász, Erlaut. Ausst. Ungar. Vogelf.* p. 101 (1891); *Brusina, Orn. Jahrb.* ii. p 25 (1891); *Hartert, Ibis*, 1892, p. 514 (E. Prussia); *Lilford, Col. Fig. Br. B.* pt. xxi. (1892).

Otis major, *Brehm, Vög. Deutschl.* p. 351 (1831).

Otis tarda, *β.* major, *Severtz. J. f. O.* 1875, p. 182.

Adult male. General colour above sandy rufous, broadly banded across with black, the bands very strongly marked on the upper back and scapulars, less so on the lower back and rump; upper tail-coverts and tail-feathers light bay or vinous-chestnut, barred across with black, some of the bars broken up; the tail-feathers more or less distinctly tipped with white, the outer feathers white at the base, the three outermost almost entirely white, with a broad subterminal band of black; lesser wing-coverts like the back, with black bars, less closely arranged than on the back; remainder of wing-coverts, bastard-wing, and primary-coverts white, powdered with grey towards the end of the feathers; quills brown with white bases, the primaries whity-brown with white shafts, the outer web and the tips blackish; the secondaries blackish, white at the base, the white increasing in extent towards the inner secondaries, which have a gradually decreasing extent of black tip till the last feathers are quite white, the innermost secondaries being sandy rufous barred with black like the back; crown of head light grey, becoming tinged with rufous on the hind neck, which has numerous narrow

black transverse bars; sides of face, ear-coverts, cheeks, and entire throat light grey, with elongated bristle-like feathers on each side of the chin; lower throat orange-chestnut, forming a band across the fore neck, which is washed with light grey, the sides of the neck with numerous small bars of black; sides of upper breast sandy rufous barred with black; remainder of under surface of body pure white: "bill leaden grey, horn-black at the tip; feet earthy brown; nails horny black; iris dark brown; eyelid with white feathers" (*J. F. Naumann*). Total length about 42 inches, culmen 2·1, wing 23·5, tail 10, tarsus 6.

Adult female. Similar to the male, but smaller, lacking the whiskers of the sides of the face, and having the grey of the throat continuous, the sides of the neck rufous, with a few black bands, the rufous colour descending on to the sides of the fore neck. Total length about 30 inches, culmen 2·1, wing 19·5, tail 8·5, tarsus 5·3.

Young. Generally similar to the old female, but much paler and more freckled on the upper surface, and having nearly all the wing-coverts barred with dusky brown, the white secondaries also freckled and barred with black, or showing a large black subterminal bar; crown of head like the back, blackish and blotched with sandy-buff markings; hind neck greyish; a tolerably broad eyebrow as well as the sides of the face and throat greyish white; the lower throat and fore neck light sandy buff, obscurely freckled with dusky cross markings; sides of the fore neck more sandy rufous, and the blackish cross bars more distinct.

Hab. Southern Europe and Northern Africa, extending to Central Asia and N.W. India.

a. Ad. st.	Europe.	Mr. Brandt.
b, c. Pull. st.	Europe.	Purchased.
d, e. Pull. st.	Europe.	Gould Coll.
f. Ad. sk.	Wiltshire.	Montagu Coll.
g. ♀ ad. sk.	Spain.	Old Coll.
h. ♀ ad.; *i, k.* Pull. st.	Andalucia.	W. J. Buck, Esq. [P.].
l, m, n. ♂ ad. sk.	Andalucia.	W. J. Buck, Esq. [P.].
o, p. Juv. et pull. sk.	Hungary, June, Aug.	Hungarian National Museum [P.].
q. ♂ imm. sk.	Bala Murghab River, Afghanistan.	Dr. Aitchison [C.].
r. ♀ juv. sk.	Husht-nagar, Murdan, Dec. 23 (*J. A. Johnson*).	Hume Coll.

2. Otis dybowskii.

Otis tarda (*nec L.*), *Pall. Zoogr. Rosso-Asiat.* ii. p. 96 (1826, pt.); *Schrenck, Reis. Amurl.* ii. p. 405 (1860); *Radde, Reis. Sibir.* ii. p. 308 (1868); *Dyb. & Parvex, J. f. O.* 1868, p. 337 (Dauria); *Tacz. J. f. O.* 1873, p. 99; *Swinh. Ibis*, 1874, p. 424 (Chefoo, May), 1875, p. 129; *Blakist. & Pryer, Ibis*, 1878, p. 226 (Hiogo, Dec.); *Slater, Ibis*, 1882, p. 435 (Hankow Plains); *Blakist. Amended List B. Japan*, pp. 13, 43 (1884: Nagasaki).

Otis dybowskii, *Tacz. J. f. O.* 1874, p. 331 (Dauria); *id. Bull. Soc.*

Zool. France, i. p. 245 (1876); *Bogd. Consp. Av. Imp. Ross.* p. 61 (1884); *Seeb. Ibis*, 1884, p. 178 (Nagasaki), p. 267 (Central China); *Tacz. P. Z. S.* 1888, p. 456 (Corea); *Seebohm, B. Japan. Emp.* p. 355 (1890); *Styan, Ibis*, 1890, pp. 329, 502 (Lower Yangtze); *Menzbier, Orn. Turkest.* pl. lxiv. (1891); *Campbell, Ibis*, 1892, p. 247 (Corea).

Adult male. Similar to *O. tarda*, but with the head and hind neck more clearer ashy grey, as also the sides of the neck; lower throat and fore neck light bluish grey, the latter with a few rufous feathers barred with black.

The species is chiefly distinguished by having the inner marginal coverts like the back, the median row being light grey or white like the rest of the wing-coverts. Total length about 34 inches, culmen 2·2, wing 24, tail 9, tarsus 5·7.

Adult female. Scarcely to be distinguished from the female of *O. tarda*, but darker grey on the head and neck; the median wing-coverts, however, appear to have fully as much sandy colour as in *O. tarda*. Total length about 30 inches, culmen 2, wing 18, tail 6·5, tarsus 4·9.

Hab. Eastern Siberia from Dauria to Mantchuria, Corea, and Japan, south to the Yangtze basin.

a. ♂ imm. sk.	South Manchuria.	E. M. James, Esq. [P.].
b. ♀ ad. sk.	Söul, Corea, Jan. 13.	C. W. Campbell, Esq. [P.].
c. ♀ ad. sk.	Shanghai, March 10.	Shanghai Museum [P.].

2. TETRAX.

Type.

Tetrax, *Leach, Syst. Cat. Mamm. etc. Brit. Mus.* p. 28 (1816) ..... T. tetrax.

Range. The same as that of the single species of the genus.

1. Tetrax tetrax.

The French Field Duck, *Albin, Nat. Hist. B.* iii. p. 38, pl. 41 (1740).

The Little Bustard, *Edwards, Gleanings*, i. p. 89, pl. 251 (1758, ♀); *Lath. Gen. Syn.* ii. pt. 2, p. 799 (1783); *Yarrell, Brit. B.* ii. p. 371 (1843).

La petite Outarde appellée vulgairement Canne-petière, *Briss. Orn.* v. p. 24, pl. 2. figs. 1, 2 (1760); *Daubent. Pl. Enl.* ii. pls. 10, 25.

Otis tetrax, *Linn. Syst. Nat.* i. p. 264 (1766); *Gm. Syst. Nat.* i. p. 723 (1788); *Bechst. Orn. Taschenb.* p. 246 (1802); *Vieill. N. Dict. d'Hist. Nat.* xxiv. p. 291 (1818); *Temm. Man. d'Orn.* ii. p. 507 (1820); *Roux, Orn. Provenç.* pl. 265 (1825); *Pall. Zoogr. Rosso-Asiat.* ii. p. 100 (1826); *Werner, Atlas, Coureurs.* pl. 3 (1827); *Brehm, Vög. Deutschl.* p. 533 (1831); *Ménétr. Cat. raiss. Cauc.* p. 48 (1832); *Naum. Vög. Deutschl.* vii. Taf. 169 (1834); *Rüpp. Mus. Senckenb.* ii. p. 232 (1837); *Gould, B. Eur.* iv. pl. 269 (1837); *Crespon, Orn. Gard*, p. 344 (1840); *Keys. & Blas. Wirb. Eur.* p. lxvii (1840); *Nordm. in Démid. Voy. Russ. mérid.* iii. p. 225 (1840); *Selys-Longch. Faune Belge*, p. 119 (1842); *Schl. Rev. Crit.* p. lxxix (1844); *Muhle, Beitr. Orn. Griechenl.* p. 89 (1844); *Gray, List Gralla Brit. Mus.* p. 55 (1844); *id. Gen. B.* iii. p. 532

(1845); *Hewits. Eggs Br. B.* ii. p. 246, pl. 66. fig. 2 (1846); *Thomps. B. Irel.* ii. p. 77 (1850); *Kjærb. Orn. Dan.* pl. xxix. fig. 3 (1851); *Macgill. Brit. B.* iv. p. 35 (1852); *Schl. Vog. Nederl.* pls. 205, 206 (1854); *Heugl. Syst. Uebers.* p. 54 (1856); *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 439 (1859); *Tristr. Ibis*, 1859, p. 36 (Palestine); *Salvin, t. c.* pp. 191, 353 (E. Atlas, breeding); *Linderm. Vög. Griechenl.* p. 127 (1860); *Tristr. Ibis*, 1860, p. 75 (W. Sahara); *Powys, t. c.* p. 239 (Corfu); *Schl. Dier. Nederl. Vog.* pl. 20. figs. 6, 7 (1861); *Gray, List Brit. B.* p. 134 (1863); *Gould, B. Gt. Brit.* iv. pl. 18 (1864); *Wright, Ibis*, 1864, p. 140 (Malta); *Schl. Mus. Pays-Bas*, Cursores, p. 2 (1865); *Gigl. Ibis*, 1865, p. 59 (Pisa); *More, t. c.* p. 430; *Lilford, Ibis*, 1866, p. 174 (S. Spain), p. 377 (Aranjuez); *Degl. & Gerbe, Orn. Eur.* ii. p. 100 (1867); *Drake, Ibis*, 1867, p. 429 (Morocco); *Tristr. Ibis*, 1868, p. 322 (Palestine); *Beavan, t. c.* p. 388 (Peshawur); *Smith, t. c.* p. 452 (Portugal); *Sund. Svensk. Fogl., Bihang*, pl. lxxv. figs. 1, 2 (1869); *Borggr. Vogelf. Norddeutschl.* p. 105 (1869); *Doderl. Avif. Sicil.* p. 170 (1869); *Elwes & Buckley, Ibis*, 1870, p. 329 (Macedonia; Dobrudscha); *Fritsch, Vög. Eur.* tab. 36. figs. 1, 2 (1870); *Salvad. Faun. Ital., Ucc.* p. 195 (1871); *Gurney, Ibis*, 1871, p. 296 (Algeria); *Saunders, t. c.* p. 385 (S. Spain); *Gray, Hand-l. B.* iii. p. 7, no. 9914 (1871); *R. Gray, B. W. Scotl.* p. 249 (1871); *Harting, Handb. Brit. B.* p. 42 (1872); *G. C. Taylor, Ibis*, 1872, p. 232 (Pera); *Dresser, B. Eur.* vii. p. 382, pl. 509 (1872); *Shelley, B. Egypt*, p. 226 (1872); *Severtz. Turkest. Jevotn.* p. 68 (1873, breeding); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 937 (1873); *Brooke, Ibis*, 1873, p. 337 (Sardinia); *Thienem. Zool. Gart.* 1875, p. 363 (Thuringia, breeding); *Jäckel, t. c.* p. 453; *Fallon, Ois. Belg.* p. 144 (1875); *Danf. & Harvie-Brown, Ibis*, 1875, p. 418 (Transylvania); *Dresser, Ibis*, 1876, p. 326; *Thienem. J. f. O.* 1876, p. 36; *Blanf. East. Persia*, ii. p. 287 (1876: Teherau); *Scully, Str. F.* iv. p. 184 (1876: E. Turkestan); *Tacz. Bull. Soc. Zool. France*, ii. p. 154 (1877: Poland); *Finsch, Ibis*, 1877, p. 49 (Omsk: Semipalatinsk); *Hume & Marsh. Game-B. Ind.* i. p. 4, pl. 2 (1878); *Bogd. B. Cauc.* p. 148 (1879); *Finsch, Verh. z.-b. Ges. Wien*, xxix. p. 242 (1879: Saissan); *Hume, Str. F.* viii. p. 111 (1879); *Phillipps-Wolley, Sport Crimea & Cauc.* p. 295 (1881); *Bidd. Ibis*, 1881, p. 94 (Gilgit); *Scully, t. c.* p. 586 (Gilgit: not breeding); *G. F. Mathew, Zool.* 1881, p. 59; *C. Swinh. Ibis*, 1882, p. 119 (Kandahar); *Seeb. t. c.* p. 220 (Astrachan), 1883, p. 28 (Caucasus); *Severtz. Ibis*, 1883, p. 72 (Pamir); *B. O. U. List Br. B.* p. 154 (1883); *Saunders, ed. Yarr. Brit. B.* iii. p. 216 (1883); *Chapm. Ibis*, 1883, p. 95; *Saunders, t. c.* p. 338 (Pyrenees, breeding); *Donovan, Zool.* 1884, p. 69 (Co. Cork); *Seeb. Hist. Brit. B.* ii. p. 587, pl. 22 (1884); *Tristr. Faun. & Flor. Palest.* p. 127 (1884); *Radde, Orn. Cauc.* p. 64 (1884); *Bogd. Consp. Av. Imp. Ross.* p. 64 (1884); *Schalow, Zeitschr. ges. Orn.* ii. p. 9 (1885: Brandenburg, breeding); *Zaroudn. Ois. Transcasp.* p. 67 (1885); *Meyer, Abbild. Vogel-Skel.* Lief. xi. Taf. cv. (1886: skeleton); *Gigl. Avif. Ital.* p. 363 (1886: breeding); *Tait, Ibis*, 1887, p. 384 (Portugal); *Salvad. Elench. Ucc. Ital.* p. 203 (1887); *Scully, J. A. S. Beng.* lvi. p. 87 (1887); *Guillem. Ibis*, 1888, p. 97 (Cyprus); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 50 (1888: Tschinas, March; Samarkand, Oct.); *Kœnig, J. f. O.* 1888, p. 267 (Tunis, April); *St. John, Ibis*, 1889, p. 175 (Kandahar); *Lilford, t. c.* p. 337 (Cyprus); *Jouan, Mém. Soc. Cherb.* xxvi. p. 191 (1889: Cherbourg); *Reichen. Syst. Verz. Vög. Deutschl.* p. 45 (1889); *Saunders, Man. Brit. B.*

p. 511 (1889); *Gigl. Avif. Ital.*, 1st Resoc. p. 559 (1889), 2nd Resoc. p. 657 (1890), 3rd Resoc. p. 514 (1891); *Southwell, Zool.* 1890, p. 462; *Brusina, Motr. (Orn. Croatica)*, p. 84 (1890); *Collett, Forh. Sellsk. Christiania*, 1890, no. 4, p. 10 (Norway); *Reiser, Vog. Landesm. Sarajevo*, p. 105 (1891); *Sharpe, Sci. Res. 2nd Yarkand Miss., Aves*, p. 145 (1891); *Madarász, Erlaut. Ausst. Ungar. Vogelf.* p. 101 (1891); *Gätke, Vogelw. Helgol.* p. 464 (1891); *Hartert, Ibis*, 1892, p. 513 (E. Prussia); *Lilford, Col. Fig. Br. B.* pl. xxiv. (1893).

Tetrax campestris, *Leach, Syst. Cat. Mamm. etc. Brit. Mus.* p. 28 (1816); *Bp. C. R.* xliii. p. 416 (1856); *Loche, Expl. Sci. Algér., Ois.* ii. p. 251 (1867); *Irby, B. Gibr.* p. 150 (1875).

Otis tetrao, *Macgill. Brit. B.* ii. p. 40 (1846; lapsu).

Tetrax tetrax, *Licht. Nomencl. Av. Mus. Berol.* p. 88 (1854).

Otis minor, *Brehm, Naum.* 1855, p. 288.

Otis campestris, *Brehm, Vogelf.* p. 277 (1855).

Adult male in breeding-plumage. General colour above sandy buff, coarsely vermiculated with black, and also showing some black blotches in the centre of the feathers; rump a little greyer than the back, the feathers being freckled with whitish instead of sandy buff; upper tail-coverts white, or white mottled with a few blackish markings; wing-coverts like the back, but somewhat more sparsely vermiculated with black; lesser and median coverts white at the ends, and more or less freckled with black; the external coverts, bastard-wing, and greater coverts pure white, the inner ones slightly freckled or spotted with blackish; primary-coverts blackish, narrowly tipped with white; quills white, mostly blackish towards the ends, the tips of these feathers being again white, so that the black mark becomes subterminal; the outer primaries blackish with white bases, the white gradually increasing towards the secondaries, which are almost entirely white with an occasional spot of black; innermost secondaries like the back; tail-feathers coarsely freckled with black on a white ground and crossed with four distinct bars of blackish, which are very pronounced on the basal half of the tail, which is white without any blackish frecklings, the outer feathers broadly tipped with creamy white; crown of head, nape, and hind neck brown, mottled with streaks and edgings of sandy buff, with a few blue-grey feathers intermixed; lores and sides of crown pale sandy buff, streaked with dark brown; feathers above and round the eye uniform creamy buff; sides of face, ear-coverts, cheeks, and throat light bluish grey, which is bordered by a broad band of black extending from the sides of the hind neck diagonally across the latter and uniting in a broad band which runs down the centre of the lower throat; around the hind neck and occupying the sides of the latter is a broad extent of black which unites on the upper fore neck; this is bordered above by a broad band of white which encircles the hind neck, separates the black on the sides of the neck, and descending on the latter to the lower throat, unites there in a point; across the lower fore neck a broad black band which is separated from the lower throat by a band of white which traverses the fore neck also; remainder of under surface pure white; sides of the upper breast sandy-coloured and mottled with black like the

upper parts; under wing-coverts, axillaries, and quill-lining pure white: "bill horn-grey, black at the tip, dull yellowish at base of mandible; feet dull ochre-yellow; iris yellowish" (*J. F. Naumann*). Total length 17 inches, culmen 1·5, wing 9·4, tail 3·7, tarsus 2·4.

Adult female. Differs from the male in being somewhat lighter rufous and more coarsely mottled with black on the upper surface; the head and neck not particoloured but resembling the back; the hind neck and mantle, as well as parts of the scapulars and back, spangled by ovate drops of sandy buff, most of these drops having a twin spot of black in the centre; sides of face sandy rufous streaked with black; throat white; lower throat, fore neck, and upper breast sandy buff, the former streaked with black, and the fore neck and chest with circular bars or spots of black; remainder of under surface pure white as also the under wing-coverts; the lower primary-coverts with cross-bars of black; the wings as in the male, but the exterior coverts and greater series of coverts barred with black. Total length 17 inches, culmen 1·1, wing 9·7, tail 4, tarsus 2·4.

Young. Generally distinguishable from the adult by the greater amount of barring on the chest, by the more profuse barring on the white upper tail-coverts, and the sandy frecklings of the primary-coverts: "iris brownish yellow" (*J. F. Naumann*).

Hab. Southern Europe and Northern Africa, throughout Central Asia to North-western India.

a. Juv. st.	Europe.	
b. ♀ juv. sk.	Plymouth, Devonshire.	W. Prideaux, Esq.
c. ♂ ad. st.	Walmwell, Dorsetshire.	Rev. E. Pickard Cambridge [P.].
d. ♀ ad. st.	Hampshire.	E. McMorland, Esq. [P.].
e. ♂ ad. st.	Germany.	Purchased.
f. ♀ ad. st.	Italy.	Purchased.
g. ♀ ad. sk.	Malaga, Spain, Oct. 26 (*H. Saunders*).	Tweeddale Coll.
h. ♂ ad. sk.	Tangiers.	M. Favier [C.].
i, k. ♂ ♀ ad. sk.	Algeria (*Loche*).	Shelley Coll.
l. ♀ juv. sk.	Ain Djendeli, Algeria (*O. S.*).	Salvin-Godman Coll.
m, n. ♂ ♀ ad. sk.	Lower Volga, May.	Hume Coll.
o. Ad. sk.	Persia.	Old Collection.
p. ♂ ad. sk.	Omsk, Siberia, May 25.	St. George Littledale, Esq. [P.].
q. ♂ ad. sk.	Saissan, May 20 (*Dr. O. Finsch*).	Geogr. Soc. Bremen.
r. ♀ imm. sk.	Afghanistan (*Griffith*).	India Museum.
s. ♀ juv. sk.	Candahar, Nov.	Colonel Swinhoe [P.].
t–w. ♂ juv.; *x, y, z.* ♀ juv. sk.	Murdan, Dec. to April (*J. M. Johnson*).	Hume Coll.
a'. Skeleton.	Europe.	Zoological Society.

3. LOPHOTIS.

	Type.
Lophotis, *Reichenb. Av. Syst.* tab. xxxi. fig. 9 (1849) ..	L. ruficrista.

Range. Confined to Eastern and Southern Africa.

Key to the Species.

a. With a vinous-chestnut crest on the nape ..... *ruficrista*, p. 291.
b. With an isabelline or vinous-buff crest on the nape. *yindiana*, p. 292.

1. Lophotis ruficrista.

Otis ruficrista, *Smith, Ill. Zool. S. Afr., Birds*, pl. 4 (1838) *Gray, List Gralla Brit. Mus.* p. 56 (1844); *Strickl. & Scl. Contr. Orn.* 1852, p. 158 (Damara); *Mont. P. Z. S.* 1865, p. 89 (Benguela); *Schl. Mus. Pays-Bas*, Cursores, p. 5 (1865); *Bocage, Orn. Angola*, p. 418, note (1881); *Sharpe, ed. Layard's B. S. Afr.* pp. 639, 854 (1884: Orange River); *Büttik. Notes Leyden Mus.* x. p. 242 (1888: Cunene River).

Eupodotis ruficrista, *Gray, Gen. B.* iii. p. 533 (1845); *Layard, B. S. Afr.* p. 286 (1867: not in Cape Colony or S. of Orange River); *Gurney, Ibis*, 1868, p. 269; *Chapman, Trav. in S. Afr.* ii. App. p. 414 (Lake Ngami); *Gray, Hand-l. B.* iii. p. 8, no. 9932 (1871); *Ayres, Ibis*, 1871, p. 263 (Marico); *Gurney in Anderss. B. Dam. Ld.* p. 259 (1872: Gt. Namaqualand and S. Damaraland); *Buckley, Ibis*, 1874, p. 386 (Transvaal, July); *Ayres, Ibis*, 1880, p. 110 (Transvaal); *Shelley, Ibis*, 1882, p. 361 (Crocodile River, Matje Umschlope, Matabele-land, breeding); *Ayres, Ibis*, 1886, p. 293 (Transvaal).

Lophotis ruficrista, *Reichenb. Handb., Gall.* tab. cclvi. fig. 2175 (1848); *Bp. C. R.* xliii. p. 416 (1856).

Adult male. General colour above black in the centre of the feathers, which are margined with sandy rufous and mottled with black, the feathers centred with lanceolate markings of pale sandy buff; lower back and rump sandy buff, crossed with blackish vermiculations and tinged with ashy on the rump; the upper tail-coverts and centre tail-feathers decidedly more ashy than the back and more coarsely vermiculated with blackish, and distinctly crossed by bars or arrowhead markings of black, the bars on the tail-feathers being four in number; the outer tail-feathers black, freckled with sandy buff and vermiculated towards the base, the outermost feathers almost entirely black; lesser and median wing-coverts like the back, with the same lanceolate markings of sandy buff, the outer median coverts white with black bases and black shaft-lines, the greater coverts black, inner ones white, all the inner coverts and inner secondaries coloured and mottled like the back; bastard-wing black; primary-coverts also black, with the greater part of the outer web sandy buff, this sandy-buff portion sometimes mottled and barred with black; quills black, chequered for two-thirds of their length with fulvescent markings, generally quadrate but sometimes taking the form of bars; crown of head dark slaty blue; lores, eyelid, and a broad eyebrow sandy buff, streaked with blackish edgings to the feathers, this superciliary band meeting on the nape; ear-coverts light brown; below the eye a band of slaty blue; on the nape a tuft of vinous-red feathers, forming a crest; hind neck ashy brown tinged with grey; cheeks and throat isabelline, with a broad band of black in the centre of the latter; lower throat and sides of neck ashy grey, spotted with pale sandy buff in the centre of the

feathers; the fore neck and chest slaty blue; remainder of under surface of body black; sides of chest for the most part mottled with sandy-buff spots like the back, followed by a conspicuous patch of white, these white feathers shaded with bluish grey: "bill with the basal part ashy yellowish, the ends of the mandibles pale ashy, culmen dusky; tarsi and feet nearly white; iris dull tawny brown" (*T. Ayres*). Total length 16 inches, culmen 1·35, wing 10·6, tail 4·6, tarsus 3·2.

Adult female. Similar to the male as regards the colouring of the upper parts and the black abdomen, but differing in the colour of the head and chest; wings and tail also similar to those of the male. The differences in the colour of the head are as follows:—The crown is dark brown, with large spots of sandy rufous; the occipital region ashy, freckled with lines of black; lores and a broad eyebrow isabelline buff, the feathers edged with black; below the eye a band of sandy rufous, the feathers margined with black; ear-coverts sandy buff; cheeks and throat white, but with no mesial band of black on the latter; neck, fore neck, and chest brown, mottled with sandy-buff spots and markings and varied with a few cross lines of black; across the chest a broad band of white; axillaries black; under wing-coverts white barred with black or black tipped with white: "bill yellowish on the basal portion; lower mandible pale ashy at tip, upper mandible dark brown; tarsi and feet yellowish white; iris light tawny hazel" (*T. Ayres*). Total length 16 inches, culmen 1·35, wing 10·2, tail 4·6, tarsus 3.

The rufous crest of the male is exactly of the same tint as the vinous-coloured bases of the feathers, which form so peculiar a characteristic in this and all other Bustards. This colour fades in time, and I find that the crest of the present species is affected by exposure to the light. Thus the type of *E. ruficrista*, having been exposed in the Gallery of the Museum for forty years, has lost all trace of a rufous crest, this having become bleached white.

Hab. South Africa.

a. ♂ imm. sk.	South Africa.	Old Coll.
b. ♀ ad. st.	South Africa.	Sir A. Smith [C.].
c. ♂ ad. sk.	South Africa.	Sir A. Smith [C.]. (Type of species.)
d. ♂ ad. sk.	Transvaal, July 6 (*T. E. Buckley*).	Shelley Coll.
e. ♂ ad. sk.	Limpopo River, Transvaal, July 20 (*T. Ayres*).	Gurney Coll.
f, *g*. ♂ ♀ ad. sk.	Rustenberg, East Transvaal, July 25 (*T. Ayres*).	Gurney Coll.
h. ♂ ad. sk.	Benguela.	Monteiro Coll.

2. Lophotis gindiana.

Eupodotis gindiana, *Oust. Bull. Soc. Philom.* 1881, p. 163 (Somaliland).

Otis (Lophotis) fulvicrista, *Cab. Orn. Centralbl.* 1882, p. 14; *Reichen. & Schalow, J. f. O.* 1882, p. 113.

Lophotis fulvicrista, *Cab. J. f. O.* 1882, p. 123 (Berbera).
Lophotis gindiana, *Reichen. Zool. Jahresb.* 1882, p. 223; *Salvad. Ann. Mus. Genov.* (2) vi. p. 453 (1888: Gherba, Shoa).
Eupodotis maculipennis (*nec Cab.*), *Shelley, P. Z. S.* 1889, p. 371 (Useri River).
Otis maculipennis, *Sharpe* (*nec Cab.*), *Ibis*, 1892, p. 543 (Turquel, Jan.).

Adult male. Similar to *L. ruficrista*, but rather more ashy above and not showing such distinct spear-shaped markings of sandy rufous; the under surface of the body is similar to that of *L. ruficrista*, but the wing-coverts are not entirely black, and the major series are vinous isabelline margined with black; the quills are barred with yellowish, the inner primaries almost entirely of the latter colour on their inner web, and the secondaries regularly barred across with the same; the crown is light slaty blue, and the crest vinous isabelline; the eyebrow, sides of face, and throat are uniform isabelline of a slight vinous tint, the lores and feathers below the eye having a slight shade of grey, and the throat has a median band of black: "bill dusky on upper mandible, pale brown on the lower; feet white; iris white" (*F. J. Jackson*). Total length 16 inches, culmen 1·3, wing 11·3, tail 5·3, tarsus 3·5.

Hab. Eastern Africa from Somali-land to Shoa and Turquel, south to Kilimanjaro and the Pangani River.

a. ♂ ad. sk.	Useri River, East Africa, July 7.	H. C. V. Hunter, Esq. [P.].
b. Ad. sk.	Somali-land.	C. Chevalier, Esq. [P.].

4. COMPSOTIS.

	Type.
Afrotis, *Bp. C. R.* xliii. p. 416 (1856)	C. afra.
Compsotis, *Heine in Heine & Reichen. Nomencl. Mus. Hein.* p. 235 (1890: nom. emend.)	C. afra.

Range. Confined to Southern portions of the African continent.

Key to the Species.

a. Throat black, like the rest of underparts. (*Males.*)
  a'. Quill-lining black ..... *afra*, p. 293.
  b'. Quill-lining white ..... *leucoptera*, p. 294.
b. Fore neck brown or white, with black bars; abdomen and sides of body black. (*Females.*)
  c'. Quill-lining black ..... *afra*, p. 293.
  d'. Quill-lining white ..... *leucoptera*, p. 294.

1. Compsotis afra.

White-eared Bustard, *Lath. Gen. Syn.* ii. pt. 2, p. 802, pl. lxix. (1782).
Otis afra, *Forster, Icon. ined in Brit. Mus.* no. 134; *Gm. Syst. Nat.* i. p. 724 (1788); *Vieill. N. Dict. d'Hist. Nat.* xxiv. p. 294 (1818);

Cuvier, Règne Anim. i. p. 499 (1829); *Gray, List Gralæ Brit. Mus.* p. 57 (1844); *Forster, Descr. Anim.* p. 51 (1844); *Holub & Pelz. Beitr. Orn. Sudafr.* p. 231 (1882: Cape Colony); *Sharpe, ed. Layard's B. S. Afr.* p. 642 (1884).

Eupodotis afra, *Gray, Gen. B.* iii. p. 533 (1845); *Layard, B. S. Afr.* p. 286 (1867: Cape Colony); *Gray, Hand-l. B.* iii. p. 8, no. 9930 (1871); *Gurney in Anderss. B. Dam. Ld.* p. 260 (1872: S. of Orange River only); *Shelley, Ibis*, 1875, p. 85 (Ceres, Cape Colony).

Lissotis afra, *Reichenb. Handb., Gallin.* tab. ccliv. figs. 2165-67 (1848).

Afrotis afra, *Bp. C. R.* xliii. p. 416 (1856).

Compsotis afra, *Heine & Reichen. Nomencl. Mus. Hein.* p. 325 (1890).

Adult male. Similar to *C. leucoptera*, but darker and not so regularly banded with black and sandy buff, the black predominating and the sandy bars being circular or horseshoe-shape, the black on the wing-coverts more extended and forming distinct broad bands on the outer median coverts, so that the white is less extended than in *C. leucoptera*; the principal difference, however, is the under wing-coverts and quill-lining being black: "bill horny ash at the tip, yellowish at the base; tarsi and feet yellow; iris dusky tawny brown" (*T. Ayres*). Total length about 19 inches, culmen 1·4, wing 10, tail 5·6, tarsus 3·85.

Adult female. Differs from the male in not having the neck and breast black, but is easily distinguished from the female of *C. leucoptera* by the black quill-lining. Total length about 19 inches, culmen 1·4, wing 10·3, tail 4·6, tarsus 3·5.

Hab. South Africa.

a, b. ♂ ♀ ad. st.	South Africa.	General Hardwicke [P.].
c, d. ♂ ♀ ad. st.	South Africa.	J. Gould, Esq.
e. ♂ imm. st.	South Africa.	Sir A. Smith [C.].
f. ♂ ad. sk.	South Africa.	Capt. Alexander [P.].
g. ♂ ad. sk.	South Africa.	Mrs. Sterling [P.].
h, i. ♂ ♀ ad. sk.	South-east Africa.	J. Rocke, Esq. [P.].

2. Compsotis leucoptera.

Otis afroides (!), *Smith, Ill. Zool. S. Afr., Birds*, pl. 19 (1839); *Gray, List Gralla Brit. Mus.* p. 57 (1844); *Holub & Pelz. Beitr. Orn. Sudafr.* p. 229 (1882); *Sharpe, ed. Layard's B. S. Afr.* p. 642 (1884).

Eupodotis afroides, *Gray, Gen. B.* iii. p. 533 (1845); *Layard, B. S. Afr.* p. 287 (1867: N. of Orange River, rarely south); *Gurney, Ibis*, 1868, p. 48 (Natal); *Layard, Ibis*, 1869, p. 375 (egg); *Gray, Hand-l. B.* iii. p. 8. no. 9931 (1871); *Gurney in Anderss. B. Dam. Ld.* p. 260 (1872: Gt. Namaqua & Damara-ld., breeding); *Buckley, Ibis*, 1874, p. 385 (Transvaal); *Ayres, Ibis*, 1877, p. 347 (Transvaal); *id. Ibis*, 1880, p. 265 (Transvaal; breeding).

Lissotis leucoptera, *Reichenb. Handb., Gall.* tab. ccliv. figs. 2168-70 (1848).

Afrotis afroides, *Bp. C. R.* xliii. p. 416 (1856).

Otis leucoptera, *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 964, note (1873).
Eupodotis afra (*nec L.*), *Barratt, Ibis*, 1876, p. 192 (Lydenburg); *Shelley, Ibis*, 1882, p. 362 (Bommingani Pan).
Otis atra, *Bryden, Kloof & Karroo*, pl. to p. 308, fig. 15 (1889).

Adult male. General colour above dark sandy buff, regularly barred across with black and irrorated or vermiculated; scapulars like the back; lower back, rump, and upper tail-coverts rather more dusky and shaded with ashy, the black bars not so pronounced and the sandy-buff ones paler, being replaced on the upper tail-coverts by white bars somewhat irregular in shape; lesser wing-coverts like the back, the external ones with fewer markings and becoming pure white like the rest of the coverts, the greater series white with a few concealed black markings or bars; bastard-wing feathers black with white tips; primary-coverts and quills black; primaries white for the greater part of their webs, the secondaries with white at the base of the outer web increasing in extent towards the inner secondaries, which are white mottled with white and black, the innermost secondaries barred with sandy colour and black like the back; tail-feathers ashy grey tipped with white, mottled with black irrorations, mostly on the outer web, and crossed by two black bands, the second subterminal, these black bands less pronounced on the centre feathers, which are like the upper tail-coverts; crown of head ashy, some of the feathers crossed with narrow blackish bars, with a circle of white feathers round the nape; occiput, nape, and hind neck black; forehead, lores, and a narrow eyebrow black, as well as the sides of the hinder crown; sides of face and cheeks black like the entire under surface of body; ear-coverts white, forming a patch; on each side of the chest a large white patch extending backwards across the lower hind neck and forming a collar, which separates the black of the hind neck from the back; under wing-coverts and quill-lining white; axillaries black: "bill light greyish brown, with the basal half pale rose-pink, which changes after death to pale chrome-yellow; tarsi and feet dark gamboge-yellow; iris light tawny brown, darkest towards the centre" (*T. Ayres*). Total length about 19 inches, culmen 1·4, wing 11·2, tail 4·7, tarsus 3·2.

Adult female. Differs from the male in the absence of black on the neck, throat, and breast, the black being confined to the abdomen, under tail-coverts, and axillaries. Total length about 16 inches, culmen 1·2, wing 10·5, tail 4, tarsus 3·75.

The *young males* have the arrowhead markings of sandy rufous all over the upper surface; the head blackish, spotted with sandy rufous and narrowly barred on the occiput, and with a concealed black patch on the nape; ear-coverts sandy buff, as also the fore parts of the cheeks and throat, the latter mottled with black bases; hinder cheeks white, extending to the sides of the nape; lower throat, fore neck, and sides of the neck sandy buff, narrowly barred with white, the chest a little more broadly barred.

Hab. South-eastern Africa.

a, *b*. ♀ ad. st.	South Africa.	Sir A. Smith [C.].
c, *d*. ♂ ad. sk.	South Africa.	Sir A. Smith [C.]. (Types of species.)
e. ♂ ad. sk.	South Africa.	Mrs. Sterling [P.].
f. ♂ ad. sk.	Transvaal.	Shelley Coll.
g, *h*. ♂ ad. et juv. sk.	Potchefstroom, Transvaal, Jan., May (*T. Ayres*).	Gurney Coll.

5. HETEROTETRAX.

Type.

Heterotis *, *Sharpe* (*nec Ehr.*), *Bull. Brit. Orn. Club*, ix. p. 1 (June 1893) ..... H. vigorsii.

Range. Confined to Africa.

Key to the Species.

a. Axillaries white.
  a'. Sides of face freckled like the head; throat black, but no black spots on the cheeks and ear-coverts; sides of neck not streaked with black; black not extending to the fore neck .. *vigorsi*, p. 296.
  b'. Sides of face not freckled, uniform, a black spot at the gape; cheeks and chin white, with a black patch behind the ear, and a streak of black from behind the cheeks down the hind neck ..... *rueppelli*, p. 297.
b. Axillaries black ..... *humilis*, p. 298.

1. Heterotetrax vigorsi.

Otis vigorsii, *Smith, P. Z. S.* 1830, p. 11; *Gray, List Gralle Brit. Mus.* p. 56 (1844); *Schl. Mus. Pays-Bas*, Cursores, p. 5 (1865); *Bryden, Kloof & Karroo*, pl. to p. 308, fig. 6, & p. 320 (1889).

Otis scolopacea, *Temm. Pl. Col.* v. pl. 576 (1835); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 964, note (1873); *Sharpe, ed. Layard's B. S. Afr.* p. 637 (1884).

Eupodotis vigorsi, *Gray, Gen. B.* iii. p. 533 (1845).

Trachelotis vigorsii, *Reichenb. Handb., Gall.* tab. cclv. figs. 2171–72 (1848).

Trachelotis scolopacea, *Bp. C. R.* xliii. p. 416 (1856); *Heine & Reichen. Nomencl. Mus. Hein.* p. 325 (1890).

Eupodotis scolopacea, *Layard, B. S. Afr.* p. 284 (1867); *Gray, Hand-l. B.* iii. p. 8, no. 9934 (1871); *Holub & Pelz. Beitr. Orn. Sudafr.* p. 232 (1882: Central Cape Colony to the Zambesi).

Heterotis vigorsi, *Sharpe, Bull. B. O. C.* i. p. 1 (1893).

Adult. General colour above dull ashy with an admixture of sandy buff, the feathers finely irrorated with blackish; scapulars and inner secondaries with large blotches or bands of blackish; lower back, rump, and upper tail-coverts more uniform, with very tiny irrorations of black, the upper tail-coverts with a few indistinct blackish bars; lesser wing-coverts rather lighter than the back, very finely irrorated with blackish vermiculations, the greater series rather more sandy-coloured, the markings coarser, and the feathers tipped with black; bastard-wing ashy like the wing-

* Preoccupied in Fishes.

coverts; primary-coverts and quills blackish at the ends and tawny at the bases, the primaries being of the latter colour for the greater part of their length, the outer secondaries tawny at the bases and crossed with black bars, the inner ones having the tawny bases mottled with black; innermost secondaries like the back; tail-feathers ashy, tinged with sandy buff like the upper tail-coverts, and somewhat freckled with blackish, crossed by a narrow bar of black some little distance from the end of the tail; crown of head, occiput, and nape ashy, freckled with tiny blackish vermiculations, as also the sides of the face and ear-coverts; on the nape a concealed spot of black feathers; chin greyish white, this colour skirting the throat; centre of throat black, forming a triangular patch which extends in a narrow line down the lower throat; sides of neck, fore neck, and under surface of body, including the flanks, ashy brown, very finely vermiculated with blackish lines; centre of breast and abdomen uniform creamy white; under tail-coverts like the flanks and vermiculated in the same manner; under wing-coverts for the most part creamy buff like the quill-lining, the small coverts round the edge of the wing ashy with blackish vermiculations; the axillaries resembling the flanks. Total length about 20 inches, culmen 1·5, wing 12·5, tail 5·6, tarsus 3·1.

Hab. South Africa.

a, *b*. Ad. sk.	South Africa.	Sir A. Smith [C.]. (Types of species.)
c, *d*. Ad. sk.	South Africa.	Mrs. Sterling [P.].

2. Heterotetrax rueppelli.

Otis rueppelli, *Wahlb. J. f. O.* 1857, p. 1; *Finsch & Hartl. Vög. Ostafr.* p. 619, note (1870); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 964, note (1873); *Bocage, Orn. Angola*, p. 419, note (1881); *Sharpe, ed. Layard's B. S. Afr.* p. 643 (1884).

Otis picturata, *Hartl. P. Z. S.* 1865, p. 88, pl. vi. (Benguela); *Mont. t. c.* p. 90; *Finsch & Hartl. Vög. Ostafr.* p. 619, note (1870).

Eupodotis rueppelli, *Gray, Hand-l. B.* iii. p. 8, no. 9935 (1871); *Gurney in Anderss. B. Dam. Ld.* p. 259 (1872: Gt. Namaqua and S. Damara).

Eupodotis picturata, *Gray, Hand-l. B.* iii. p. 8, no. 9925 (1871).

Adult (type of *O. picturata*). Similar to *H. vigorsi*, but very much paler and with a good deal of blue-grey on the head; sides of neck also blue-grey, divided by a broad line of black, which extends on to the fore neck and joins the black patch on the centre of the throat; sides of the face for the most part white; a large patch of white on the cheeks extending backwards and joining below the black patch, the latter being united to a narrow eyebrow; ear-coverts with a black patch; under surface of body from the fore neck downwards white, including the under wing-coverts and quill-lining. Total length about 20 inches, culmen 1·6, wing 12·5, tail 5·3, tarsus 3·3.

Hab. South-western Africa.

a. Ad. sk.	Benguela.	Monteiro Coll. (Type of *O. picturata*.)
b. ♂ ad. st.	Great Namaqua-land.	C. J. Andersson [C.].

3. Heterotetrax humilis *.

Sypheotides humilis, *Blyth, J. A. S. Beng.* xxiv. p. 305 (1856); *Scl. Ibis*, 1860, p. 248.
Eupodotis humilis, *Finsch & Hartl. Vög. Ostafr.* p. 618 (1870); *Gray, Hand-l. B.* iii. p. 8, no. 9028 (1871).
Otis humilis, *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 959 (1873).

Adult male. General colour above pale sandy colour, minutely vermiculated with blackish lines, and blotched with black spots and bars on the mantle and back; wing-coverts like the back, but more coarsely and irregularly vermiculated with black, with wide spaces of pinkish isabelline, on which very few black lines appear; inner secondaries like the coverts; outer median and greater coverts lighter and more ashy and creamy white on the outer web, the greater series with a black band at the tip; bastard-wing and primary-coverts creamy white, with the terminal half black; quills blackish, ashy on the inner web; the outer primaries brown and the secondaries white at the base of both webs; tail-feathers pinkish-sandy colour, crossed with wavy lines of black, and having two or three narrow bars of black; head and neck bluish grey, sandy-coloured on the crown, which is finely vermiculated with black; sides of crown and sides of face bluish grey; feathers round the eye and cheek-stripe white; chin white; throat black, concealed by white tips; neck ashy but somewhat shaded with sandy, and minutely vermiculated with blackish lines; breast and remainder of under surface of the body, as well as the under wing-coverts, white; axillaries black. Total length 16 inches, culmen 1·2, wing 10·1, tail 4·6, tarsus 2·35.

Adult female. Differs from the male in being much more coarsely marked above, without the fine vermiculations of the male; the back and wing-coverts mottled with heart-shaped patches of pinkish isabelline, in which are coarse black bars and heart-shaped blotches of black; head and neck like the back and streaked with isabelline; throat white; breast and under wing-coverts creamy white; axillaries black, tipped with white. Total length 14·5 inches, culmen 1·25, wing 9·7, tail 4, tarsus 2·4.

Hab. Somali-land.

6. NEOTIS.

	Type.
Neotis, *Sharpe, Bull. Brit. Orn. Club,* ix. p. 1 (June 1893)	N. ludwigi.

Range. Confined to Africa.

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* I am indebted to the kindness of Mr. Rowland Ward for the opportunity of describing these specimens.

Key to the Species.

a. With no rufous patch on the chest below the throat-patch.
  a'. With sandy-buff bands mottled with black on the tail-feathers; back and lesser wing-coverts with numerous spear-shaped markings of sandy buff.
    a''. Throat and fore neck brown, like the sides of the face and the top of the head ..... *ludwigi*, p. 299.
    b''. Throat and fore neck black; crown of head ashy black, as also the sides of the face .... *burchelli*, p. 300.
  b'. With white bands on the tail; with a white eyebrow; no sagittate marks on the back or wing-coverts, the latter being like the back.
    c''. Throat and chest blue-grey; upper throat white, lower throat freckled with black and white cross markings ..... *caffra*, p. 301.
    d''. Throat white; lower throat and fore neck dusky brown with a greyish shade, and freckled with black and dusky cross markings *denhami*, p. 302.
b. With a rufous patch across the fore neck; upper surface with sagittate markings of sandy buff; tail ashy mottled with blackish, and with a broad subterminal bar of black ..... *heuglini*, p. 303.

1. Neotis ludwigi.

Otis colei, *Smith, S. Afr. Q. Journ.* Oct. 1831, p. 63, note (nomen nudum).

Otis ludwigii, *Rüpp. Mus. Senckenb.* ii. p. 223, tab. xiv. (1837); *Schl. Mus. Pays-Bas*, Cursores, p. 7 (1865); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 964, note (1873); *Sharpe, ed. Layard's B. S. Afr.* pp. 636, 854 (1884: Orange River); *Hartert, Kat. Vög. Mus. Senckenb.* p. 208 (1891).

Eupodotis ludwigii, *Gray, List Grallæ Brit. Mus.* p. 58 (1844); *id. Gen. B.* iii. p. 533 (1845); *Reichenb. Handb., Gall.* tab. cclvi. figs. 2176–77 (1848); *Bp. C. R.* xliii. p. 416 (1856); *Layard, B. S. Afr.* p. 284 (1867: migrant); *id. Ibis*, 1869, p. 75; *Ayres, Ibis*, 1869, p. 299 (Potchefstroom, breeding); *Gray, Hand-l. B.* iii. p. 7, no. 9916 (1871); *Butler, Feilden, & Reid, Zool.* 1882, p. 240 (Natal).

Neotis ludwigi, *Sharpe, Bull. B. O. C.* i. p. 1 (1893).

Adult male. General colour above brown, profusely variegated with black wavy lines and blotched with large arrow headmarks of uniform sandy buff; scapulars and inner secondaries like the back, but the blotches taking the form of bands: lower back, rump, and upper tail-coverts sandy buff, rather more finely vermiculated; the upper tail-coverts a little more coarsely lined with indications of narrow bands; lesser wing-coverts like the back, those on the bend of the wing white with blackish spots; median coverts for the most part blackish, with broad sandy-coloured bands, which are freckled with blackish; greater coverts almost entirely black, with more or less vermiculations on the inner web; primary-coverts also black, with

white bands near the base and tipped with white, like the greater coverts; quills black, the inner primaries white at the base and especially along the inner web; the secondaries black, with more or less white tips; tail-feathers broadly banded with black, these bands four in number, the light bands three in number, the lower one almost entirely white, the two others sandy-coloured and almost obscured by black frecklings, the feathers with whitish or ashy tips; crown of head and nape brown, with a white coronal patch before the occiput; upper part of the hind neck and the sides of the neck white, the rest of the hind neck sandy rufous, this colour spreading on to the upper mantle, which is finely freckled with blackish; the entire sides of face, throat, fore neck, and chest blackish brown, mottled on the latter with bars of white and brown, and separated from the rufous hind neck by a line of white, which extends down the sides of the neck and joins the sides of the breast, which are white like the rest of the under surface of the body, as are also the under wing-coverts: "legs and bill yellow" (*E. L. Layard*). Total length about 36 inches, culmen 2·8, wing 21·5, tail 9, tarsus 5·9.

Adult female. Similar to the male in colour, but smaller, and distinguished by the colour of the lower throat and chest, which is brown, mottled all over with freckles and bars of white; chin and upper throat white; eyebrow white, mottled with blackish markings; sides of face brown, also mottled with white; wings as in the male, but the primary-coverts for the most part white with blackish ends. Total length about 30 inches, culmen 2·4, wing 18·2, tail 7·5, tarsus 4·8.

Hab. South Africa.

a, b. ♂ ♀ ad. sk. South Africa. Sir Andrew Smith [C.].

2. Neotis burchelli.

Eupodotis burchellii, *Heugl. J. f. O.* 1867, p. 301 (*ex Württemb. MS.*).
Otis ludwigii (*nec Rüpp.*), *Heugl. Syst. Uebers.* p. 53, note (1856).
Otis burchelli, *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 943, tab. xxxi. (1873).

Adult. "Of large size. The head, fore neck, and sides of neck dusky blackish, the former more ashy; an obsolete occipital spot and a large nuchal patch whitish; feathers of the hind neck pale rufous, partly vermiculated with dusky brown, white at the base; the nape bright cinnamon-rufous; breast and abdomen white; feathers of the throat and sides of the breast very long and loose, directed forwards, white slightly tinged with rufous; under tail-coverts shaded with buff, some of them towards the tip banded and vermiculated with blackish; interscapulary region, scapulars, lesser wing-coverts, inner secondaries, and upper tail-coverts isabelline buff, transversely marked with blackish spear-shaped spots and finely vermiculated; quills smoky blackish, more or less white towards the base, the fourth, fifth, sixth, and seventh primaries also having a white spot on the middle of the outer web; smaller primaries and

secondaries nearest to them marked at the tip with a triangular spot of white; larger wing-coverts black, tipped with white, the inner secondaries vermiculated with buff and having spear-shaped spots of the same; the tail-feathers smoky brown, vermiculated with buff, white at the base and edged with buff at the tip, with two rather broad bands of black, below margined with buff: bill dusky horn-colour, with the margins and the basal half of the mandible paler; feet yellowish. Total length about 39 inches, culmen 2·35, wing 21, tail 10, tarsus 5·6." (*Von Heuglin.*)

Hab. South Senaar, N.E. Africa.

3. Neotis caffra.

Otis caffra, *Licht. Cat. Rer. Nat. Hamburg*, p. 36 (1773); *id. Verz. Doubl.* p. 69 (1823); *J. E. Gray in Griffith's ed. Cuv. An. Kingd., Birds*, iii. p. 305 (1829); *Gurney, Ibis*, 1860, p. 216, 1864, p. 360 (Natal), 1868, p. 467; *Schl. Mus. Pays-Bas*, Cursores, p. 7 (1865); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 964, note (1873); *Bocage, Orn. Angola*, p. 416 (1881: Huilla, Humbe); *Sharpe, ed. Layard's B. S. Afr.* p. 364 (1884); *Böhm, J. f. O.* 1885, p. 67 (Qua Mpara); *Reichen. J. f. O.* 1887, p. 47 (Kiniama, Feb.); *Matschie, t. c.* p. 138 (Karema); *Bryden, Kloof & Karroo*, pl. xiv. fig. 1 (1889); *Emin, J. f. O.* 1891, p. 345 (Albert Nyanza).

Otis stanleyi, *J. E. Gray, Zool. Misc.* p. 12 (1831).

Otis rufieollis, *Wagler, Isis*, 1831, p. 520.

Eupodotis rufieollis, *Gray, List Grallæ Brit. Mus.* p. 58 (1844).

Eupodotis caffra, *Gray, Gen. B.* iii. p. 533 (1845); *Licht. Nomencl* p. 88 (1854); *Bp. C. R.* xliii. p. 416 (1856); *Layard, B. S. Afr.* p. 283 (1867); *Gray, Hand-l. B.* iii. p. 7, no. 9918 (1871); *Holub & Pelzeln, Beitr. Orn. Sudafr.* p. 233 (1882).

Adult male. General colour above greyish, finely varied with sandy and black vermiculations, these markings somewhat coarser and more pronounced on the scapulars and inner secondaries, where there are also to be seen occasional blotches of black; lower back and rump more obscurely vermiculated, the grey shade of the upper back not so distinct; the upper tail-coverts, on the other hand, more distinctly vermiculated, like the two central tail-feathers, the latter having three distinct bars of black and one broad one of white; lesser wing-coverts like the back, but somewhat browner and less distinctly vermiculated; median coverts black, with a good deal of white at the base and a small white tip; greater coverts white, with black bars near the tip, and occasionally some other black markings on the outer web, the inner web freckled with brown; bastard-wing and primary-coverts black, with small white tips; quills black, white at the base of inner web, this increasing greatly on the inner webs of the inner primaries, which are also chequered with white on the outer web, the secondaries black with white tips; tail-feathers, all but the central ones, barred with black and white, the base being uniform black, with other bars of black across the feathers, the subterminal white bar somewhat mottled with black spots, the ends of the feathers mottled with ashy; crown of head black, with a white mesial band, flanked on each side by a broad whitish eyebrow; nape greyish white,

extending down the sides of the neck for a short distance; hind neck rufous, this colour extending on to the mantle, which is very finely vermiculated with black; lores, sides of face, and ear-coverts white; cheeks white, coarsely freckled with black vermiculations; throat white, the lower part with black vermiculations, which extend down to the chest; fore neck and chest light blue-grey, bordered on the sides by the rufous on the hind neck, which extends on to the sides of the chest, where it is also varied by black markings, which form an indistinct crescent; remainder of the under surface of body pure white, including the under wing-coverts: "upper mandible dusky, under one yellowish; tarsi and feet dingy yellowish white; iris light hazel" (*T. Ayres*). Total length about 30 inches, culmen 2·7, wing 18, tail 9, tarsus 5·8.

Adult female. Similar to the male, but with an ashy band down the centre of the crown, which is finely vermiculated with blackish; the lower throat more coarsely vermiculated with blackish. Total length about 30 inches, culmen 3, wing 21, tail 10, tarsus 5.

Hab. Southern Africa, on the west to Benguela, and extending to Central East Africa.

a. ♂ ad. sk. South Africa. Old Collection.

4. Neotis denhami.

Otis denhami, *Children in Denham & Clappert. Trav.* ii. App. p. 199 (1826); *Gray in Griff. Anim. Kingd.* iii. p. 303, pl. to p. 455 (1829); *Less. Compl. Buff.* i. p. 489 (1836); *Heugl. J. f. O.* 1864, p. 272 (Djur); *id. J. f. O.* 1867, p. 302 (Sennaar); *id. Orn. N.O.-Afr.* ii. pt. 1, p. 939 (1873).

Otis caffra, pt., *Rüpp. Mus. Senckenb.* ii. p. 220 (1837); *Heugl. Syst. Uebers.* p. 53, note (1856).

Eupodotis denhami, *Temm. Pl. Col.* v. livr. 97 (1835); *Gray, List Gralle Brit. Mus.* p. 58 (1844); *id. & Mitchell, Gen. B.* iii. p. 533, pl. cxli. (1845); *Reichenb. Handb., Gall.* tab. eclviii. figs. 2182–83 (1848); *Strickl. P. Z. S.* 1850, p. 220; *id. Ann. & Mag. Nat. Hist.* (2) ix. p. 348 (1852: Kordofan); *Bp. C. R.* xliii. p. 416 (1856); *Hartl. Orn. W.-Afr.* p. 207 (1857); *Gray, Hand-l. B.* iii. p. 7, no. 9917 (1871); *Sel. P. Z. S.* 1872, p. 603 (Accra); *Forbes, P. Z. S.* 1880, p. 477.

Choriotis arabs (*nec L.*), *Antin. Cat. descr. Uce.* p. 95 (1864: Kordofan); *cf. Salvad. Atti R. Accad. Torino*, v. p. 746 (1870).

Adult male (type of species). General colour above dark sandy brown, somewhat coarsely freckled with sandy buff and slightly varied with patches where the dark brown bases of the feathers show through; scapulars, lower back, rump, and upper tail-coverts like the rest of the back, the longer upper tail-coverts with indications of white bars near the base, in this respect resembling the tail-feathers; lesser wing-coverts darker brown, with very little indication of sandy frecklings; median coverts black, with white bases and fringed with white at the tips, some of the latter with a large spot of white on the inner web; greater coverts black, with an increased amount of white on both webs and having bars or spots of white, and sometimes nearly the whole of the ends of the feathers

white, the inner ones almost entirely white, with a black subterminal band before a narrow white tip; bastard-wing tipped with white; primary-coverts blackish brown with white bars, the latter somewhat broken up with brown frecklings; quills blackish, the primaries white at base of inner web, this gradually increasing on the inner ones till it occupies nearly the whole of the inner web of the inner primaries and secondaries, which have large white spots on the outer web also, the innermost secondaries like the back; centre tail-feathers like the back, with white bands near the base concealed by the upper tail-coverts, the rest of the feathers black broadly banded with white, the white bands three in number and a subterminal one mottled with brown; crown of head black, with a slight indication of an ashy streak towards the occiput; lores and a broad eyebrow ashy white, as also the sides of the face, extending in a narrow collar round the nape; hind neck light orange-rufous; throat ashy white, followed by a patch of dark ashy brown, slightly paler and inclining to bluish grey over the fore neck, on the sides of which descends the orange-rufous colour of the hind neck; remainder of under surface from the fore neck downwards white; under wing-coverts and axillaries also white; quill-lining ashy. Total length about 38 inches, culmen 3·8, tail 13, tarsus 6·8.

Hab. West Africa from Accra to the Central Soudan and east to Kordofan, Senaar, and the Djur district.

a. ♂ ad. sk.	Central Africa.	Major Denham [P.]. (Type of species.)
b. ♀ ad. sk.	Kordofan, July 10.	Consul Petherick [C.].

5. Neotis heuglini.

Otis heuglini, *Hartl. Ibis*, 1859, p. 344, pl. xi. (Zeila-Herar); *Finsch & Hartl. Vög. Ostafr.* p. 613 (1870); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 942 (1873), App. p. clxxvii (N. Somali-land).

Eupodotis heuglini, *Heuglin in Peterm. Mitth.* 1860, Taf. 18, 1869, p. 418; *Gray, Hand-l. B.* iii. p. 8, no. 9927 (1871).

Adult. General colour above dark brown, varied with irregular markings of sandy buff and large arrowhead markings of the same colour, very distinct all over the back and wing-coverts; lower back, rump, and upper tail-coverts more uniform and closely freckled with blackish, the latter having two, and sometimes three, black bands across the feathers; wing-coverts like the back, with the same sagittate markings; median series black at the ends; greater coverts, bastard-wing, and primary-coverts dark ashy grey, tipped with white and with a subterminal shade of black; quills also dark grey tipped with white, before which is a subterminal shade of black; the primaries with a considerable amount of white on the inner web, decreasing in size towards the inner primaries, where it takes the form of a band, the innermost secondaries mottled like the back; tail-feathers ashy, mottled with sandy buff and blackish, and with a black band near the end of the tail, which is tipped with white; crown of head black, with a streak of whitish feathers down the centre; occiput, nape, hind neck, and sides of neck light bluish

grey; lores white, spotted with black; eyebrow white, as well as the feathers below the eye, the latter followed by a broad black streak mottled with white spots, this streak extending on to the upper part of the ear-coverts, which are otherwise bluish grey; chin and upper throat white; lower throat and fore neck bluish grey, overshaded with brown and followed by a band of deep chestnut across the chest, this colour extending backwards and separating in a minor degree the hind neck from the mantle; breast and the remaining parts, including the under wing-coverts and axillaries, white: "bill greenish black, paler at the tip; feet dull yellow; iris dusky" (*T. Heuglin*). Total length about 25 inches, culmen 2·8, wing 16·9, tail 5·8, tarsus 5·2.

Hab. Somali-land.

a. Ad. sk.	Somali-land.	C. Chevalier, Esq. [P.].

7. LISSOTIS *.

Type.

Lissotis, *Reichenb. Syst. Av.* pl. xxxi. fig. 8 (1849).. L. melanogaster

Range. Over the greater part of Tropical Africa.

Key to the Species.

a. With a black line down the throat, but not down the fore neck, which is bluish grey, followed by a rufous patch on the chest; breast and abdomen white..... *nuba*, p. 305.

b. Chin and throat silvery grey, a narrow line of black running down the fore neck on to the chest, which is black like the rest of the under surface.

a'. Lower back, rump, upper tail-coverts, and tail brown, vermiculated with black and crossed by bands of blackish brown ..... *melanogaster*, p. 306.

b'. Lower back, rump, upper tail-coverts, and tail black ..... *hartlaubi*, p. 307.

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* The following species is founded on a female specimen, and though recognized by Dr. Reichenow as a good species, I have not been able to place it in the 'Key':—

Lissotis maculipennis.

Otis (Lissotis) maculipennis, *Cab. J. f. O.* 1868, p. 413 (E. Africa).

Lissotis maculipennis, *Cab. in Von der Decken's Reis.* iii. p. 45, pl. xv. (1869).

Eupodotis maculipennis, *Gray, Hand-l. B.* iii. p. 88, no. 9926 (1871).

Otis maculipennis, *Finsch & Hartl. Vög. Ostafr.* p. 616 (1870); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 964, note (1873); *Fischer & Reichen. J. f. O.* 1879, p. 338 (Gelidja); *Fischer, Zeitschr. ges. Orn.* i. p. 388 (1884: Galla-land: Maurui to Aruscha); *id. J. f. O.* 1885, p. 116 (Parè Mts; Pangani; Kipini).

Hab. East Africa.

1. Lissotis nuba.

Otis nuba, *Cretzschm. in Rüpp. Atlas, Vög.* p. 1, tab. 1 (1826); *Rüpp. Mus. Senckenb.* ii. p. 226 (1837); *id. Neue Wirb., Vög.* p. 16, note (1835); *Less. Compl. Buff.* i. p. 495 (1836); *Des Murs in Lefebvre's Voy. Abyss.* p. 144 (1845); *Rüpp. Syst. Uebers.* p. 110 (1845); *Brehm, J. f. O.* 1853, Extrah. p. 101 (Nubia & E. Sudan); *id. J. f. O.* 1855, pp. 65, 493 (Kordofan); *Heugl. in Peterm. Mitth.* 1859, p. 31, 1869, p. 412; *Hartm. J. f. O.* 1863, p. 318 (Djébel-el-Djilif), 1865, p. 230; *Heugl. Orn. N.O.-Afr.* ii. pt. i. p. 945 (1873), App. p. clxxvii (S. Nubia; Kordofan; Senaar); *Hartert, Kat. Vogelsamml. Senckenb. Mus.* p. 208 (1891).

Eupodotis nuba, *Gray, Gen. B.* iii. p. 533 (1845); *Bp. C. R.* xliii. p. 416 (1856); *Gray, Hand-l. B.* iii. p. 7, no. 1195 (1873).

Houbara nuba, *Reichenb. Handb., Gall.* tab. cclvi. fig. 2174 (1848); *Heugl. Syst. Uebers.* p. 53 (1856: Nubia & N. Kordofan); *Antin. Cat. descr. Uce.* pp. xxi, 96, note (1864); *id. J. f. O.* 1865, p. 73.

Adult. General colour above very light tawny with coarse but sparsely distinct black frecklings, generally in the form of cross-bars with a few irregular arrow-head marks on the scapulars and mantle; lower back and rump also tawny with indistinct dusky cross-lines not so pronounced as on the back; upper tail-coverts rather more ashy than the back, with somewhat coarser frecklings and indications of narrow blackish bars like the tail; wing-coverts like the back, with very few cross-markings; median and greater coverts with white tips, the latter almost uniform tawny colour and with scarcely any vermiculations; bastard-wing and primary-coverts almost entirely white with a subterminal shade of black; quills blackish, all but the outermost primary with white tips, the greater part of the bases white or tinged with tawny, the innermost secondaries like the back; tail-feathers ashy freckled with black mottlings and crossed by a couple of narrow black bands, the bases of the feathers being whitish; crown of head also light tawny, with minute cross-lines of blackish, and with a band of black on each side of the crown meeting on the nape; lores and eyebrow white like the rest of the sides of the face; ear-coverts slightly washed with ashy blue like the hinder neck, lower throat, and fore neck; cheeks and chin white, as also the rest of the sides of the throat; in the centre of the throat a broad black streak; fore neck and chest deep tawny rufous, this colour extending backward on the sides of the neck and reaching upwards so as to separate the grey on the hind neck from the mantle; breast, abdomen, under wing-coverts, axillaries, and quill-lining white with a few dusky cross-markings on the upper breast: "bill horny yellow, more dusky towards the tip; feet pale yellow; iris ochraceous" (*T. Heuglin*). Total length about 25 inches, culmen 1·85, wing 13·3, tail 5·6, tarsus 4·2.

Hab. N.E. Africa.

a. Ad. sk. 5th Cataract of the Nile. F. Galton, Esq. [P.].

2. Lissotis melanogaster.

Otis melanogaster, *Rüpp. Mus. Senckenb.* ii. p. 240 (1837); *id. Neue Wirb. Vög.* p. 16, Taf. 7 (1835); *Gray, List Gralla in Brit. Mus.* p. 55 (1844); *Des Murs in Lefebvre's Voy. Abyss.* p. 143 (1845); *Rüpp. Syst. Uebers.* p. 107, tab. 41 (1845); *Kirk, Ibis*, 1864, p. 331 (Mouth of Zambesi); *Scl. P. Z. S.* 1864, p. 114 (Karagweh); *Schl. Mus. Pays-Bas*, Cursores, p. 9 (1865); *Heugl. in Peterm. Mitth.* 1869, p. 415; *Finsch & Hartl. Vög. Ostafr.* p. 614 (1870); *Heugl. Orn. N.O.-Afr.* ii. pt. i. p. 951 (1873), App. p. clxxviii; *Reichen. J. f. O.* 1877, p. 11 (Loango Coast); *Bocage, Orn. Angola*, p. 417 (1881: Huilla; Caconda; Angola; Duque do Braganza); *Sharpe, ed. Layard's B. S. Afr.* pp. 642, 854 (1884); *Salvad. Ann. Mus. Genov.* (2) i. p. 213 (1884: Daimbi; Adda Galla); *Böhm, J. f. O.* 1885, p. 52 (Gonda); *Seebohm, Ibis*, 1887, p. 351 (Natal); *Reichen. J. f. O.* 1887, p. 48 (Kabondo); *Matschie, J. f. O.* 1887, p. 145 (Lifuku; Likulwe; Upämba Lake); *Salvad. Ann. Mus. Genov.* (2) vi. p. 309 (1888: Lake Cialalaka); *Shelley, P. Z. S.* 1888, p. 48 (Redjaf).

Eupodotis melanogaster, *Gray, Gen. B.* iii. p. 533 (1845); *Hartl. Orn. W.-Afr.* p. 207 (1857: Senegal; Casamance); *Layard, B. S. Afr.* p. 286 (1867); *Sharpe, P. Z. S.* 1869, p. 570 (Ambriz); *Gray, Hand-l. B.* iii. p. 8, no. 9923 (1871); *Sharpe, Ibis*, 1872, p. 73; *Shelley & Buckley, t. c.* p. 290 (Accra); *Ussher, Ibis*, 1874, p. 72 (Accra); *Holub & Pelz. Beitr. Orn. Südafr.* p. 233 (1882); *Shelley, Ibis*, 1882, p. 362 (Umvuli River).

Lissotis melanogaster, *Reichenb. Handb., Gall.* tab. ccliii. figs. 2160–63 (1848); *Bp. C. R.* xliii. p. 416 (1856); *Heugl. Syst. Uebers.* p. 53 (1856).

Otis (Sypheotides) melanogaster, *Blanf. Geol. & Zool. Abyss.* p. 427 (1870: Adigrat; Antalo).

Adult male. General colour above dark brown, this colour predominating over the sandy-coloured portions of the upper surface, the feathers being vermiculated rather coarsely with blackish and having large median ovate or sagittate streaks of black; scapulars like the back; lower back and rump nearly uniform brown with very few transverse frecklings of sandy buff; wing-coverts lighter and more tawny, with the same kind of black frecklings and with very distinct arrowhead blotches of black, the marginal and median coverts white, as also the bastard-wing feathers, which have slight remains of black spots, the outer bastard-wing feather having black bars and mottlings and tinged with buff; greater coverts white with a slight fulvous tinge, and regularly barred with three bands of black, the inner webs somewhat coarsely mottled with the same; primary-coverts black tipped with white and an additional bar of white as well as the base, the latter tinged with tawny; first primary black, the remainder almost entirely white with black tips, the inner primaries white with a subterminal band of black, the secondaries black with two large spots of white on the outer web, the second one almost concealed by black mottling, the innermost secondaries like the back; upper tail-coverts and centre tail-feathers rather more ashy brown, the remainder either tawny or blackish brown, thickly freckled with blackish brown and crossed by five black bands, the outer feather almost entirely black; crown of head like the hind neck, sandy buff minutely freckled with black and orna-

mented with some tiny spots of lighter buff; lores and eyebrow dark slaty grey continued in a black line which skirts the sides of the head and unites on the nape and is separated from the crown by a less distinct band of white somewhat tinged with ashy; feathers below the eye, cheeks, chin, and upper throat hoary grey shading off into black on the lower throat and continued in a broad line down the centre of the neck, this line bordered on each side by a band of white which passes over the hinder cheek and joins the ear-coverts, which are also white; sides of neck and sides of upper breast sandy buff vermiculated with black, and separated from the upper parts by a line of white, the feathers being particoloured, white and black; fore neck, chest, breast, and under surface of body black, including the axillaries and under wing-coverts; thighs black with a white ring just before the bare portion of the tibia; long under tail-coverts sandy buff, towards the ends barred and freckled with black; quill-lining white: "bill pale yellowish, with the culmen dark brown; legs and feet yellowish brown; iris light brown, gradually darkening round the inner edge" (*T. Ayres*). Total length about 22 inches, culmen 1·6, wing 13, tail 6·3, tarsus 4·8.

Adult female. Similar to the male on the upper surface, but more profusely spotted with sagittate spots of black, relieved by a creamy white line which borders the black spots and brings them into strong relief; head blackish spotted with sandy buff; eyebrow, sides of face, and ear-coverts also sandy buff, with no black on the face or sides of the crown; chin and upper throat white; lower throat, fore neck, and chest sandy buff minutely freckled or barred with blackish; the feathers of the breast sandy buff with longitudinal lines and spear-shaped markings of black; remainder of under surface white tinged with sandy buff, sides of body with large blotches of black; under wing-coverts black barred with white; axillaries black; quill-lining black barred with white, some of the bars broken up into mottlings of sandy buff; tail-feathers sandy buff mottled and barred with blackish; under tail-coverts also sandy buff barred with dark brown. Total length 28 inches, culmen 1·75, wing 13, tail 6·15, tarsus 5·4.

Hab. The greater part of Tropical Africa.

a, *b*. ♂ ♀ ad. st.	Abyssinia.	Purchased.
c. ♀ ad. sk.	Abyssinia.	Dr. Rüppell [C.].
d. ♀ ad. sk.	Redjaf, Equatorial Africa, June 2.	Emin Pasha [P.].
e. ♂ imm. sk.	Kilimanjaro.	H. C. V. Hunter, Esq. [P.].
f, *g*. ♂ ad et imm.; *h*, *i*, *k*. ♀ ad. sk.	Accra, Gold Coast, Feb., May (*J. Smith*; *G. E. S.*).	Shelley Coll.
l. ♂ ad. sk.	Ambriz, Angola.	Monteiro Coll.
m. ♀ ad. sk.	Congella Flats, Durban, Natal, Aug. (*Gordge*).	Shelley Coll.

3. Lissotis hartlaubi.

Lissotis afra (*nec Gm.*), *Heugl. Syst. Uebers.* p. 53 (1856).
Otis hartlaubi, *Heugl. J. f. O.* 1863, p. 1; *Finsch & Hartl. Vög.*

Ostafr. p. 616, note (1870); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 954, tab. xxxii. (1873); *Seebohm, Ibis*, 1887, p. 351.

Adult male. Similar to *L. melanogaster*, but distinguished by having the lesser back, rump, upper and under tail-coverts, as well as the tail, black. Total length 27 inches, culmen 1·95, wing 13·5, tail 6·7, tarsus 4·7.

Hab. N.E. Africa, ranging into South Africa.

a. Ad. sk. South Africa. D. W. Mitchell, Esq. [P.].

8. TRACHELOTIS.

Type.

Trachelotis, *Reichenb. Syst. Av.* pl. xxxi. fig. 7 (1849). T. cærulescens.

Range. Tropical Africa.

Key to the Species.

a. With slaty blue on the outer wing-coverts and the primary-coverts.
  a'. Under surface of body slaty blue; under tail-coverts sandy buff, the longer ones slaty blue ..... *cærulescens*, p. 308.
  b'. Under surface of body white; the long under tail-coverts sandy buff, barred with blackish and minutely freckled with sandy buff ..... *canicollis*, p. 309.
b. Outer wing-coverts sandy rufous: primary-coverts tawny with blackish tips.
c. With a broad band of bluish grey on the hind neck; back pale brown, finely vermiculated with sandy buff ..... *senegalensis*, p. 310.
  c'. Hind neck bright rufous, not grey; back darker and more coarsely vermiculated .. *barrovii*, p. 311.

1. Trachelotis cærulescens.

Otis cærulescens, *Vieill. Enc. Méth.* i. p. 334 (1820); *Temm. Pl. Col.* v. pl. 532 (1832); *Gray, List Grallæ in Brit. Mus.* p. 56 (1844); *Schl. Mus. Pays-Bas*, Cursores, p. 4 (1865); *Gurney, Ibis*, 1868, p. 48 (Natal); *Sharpe, ed. Layard's B. S. Afr.* p. 638 (1884); *W. Ayres, Ibis*, 1887, p. 61 (Potchefstroom, Middleburg).

Otis veroxii, *Smith, S. Afr. Q. Journ.* no. v. p. 15 (1831: nomen nudum).

Otis ferox, *Smith, teste Gray, List Grallæ Brit. Mus.* p. 56 (1844).

Otis cana, *Licht. MSS. teste Gray and Bonaparte.*

Eupodotis cærulescens, *Gray, Gen. B.* iii. p. 533 (1845); *Licht. Nomencl.* p. 88 (1854); *Layard, B. S. Afr.* p. 285 (1867: Riversdale; Hanover; E. Cape Colony); *Gray, Hand-l. B.* iii. p. 8, no. 9933 (1871); *Buckley, Ibis*, 1874, p. 385 (Transvaal).

Trachelotis cærulescens, *Reichenb. Handb., Gall.* tab. cclv. fig. 2173 (1844); *Bp. C. R.* xliii. p. 416 (1856).

Adult male. General colour above sandy buff, minutely freckled with blackish wavy lines or irrorations; the lower back, rump, and

upper tail-coverts rather more tawny and more finely vermiculated; scapulars like the back, as also the innermost secondaries, the latter being a little more coarsely vermiculated; wing-coverts tawny rufous, the lesser series finely vermiculated with blackish lines, the median series uniform externally, the small coverts round the bend of the wing blue-grey; bastard-wing and primary-coverts slaty blue, with dusky or blackish ends; the outer major-coverts also slaty blue, black at the ends, the inner major-coverts tawny rufous like the median series; quills black with slaty-blue bases, the latter colour increasing in extent on the inner primaries and secondaries; tail tawny rufous at base, black at tip, the two centre feathers sandy buff, freckled with blackish lines; the outer feathers shaded with slaty blue subterminally and having the inner web for the most part slaty-blue; on some of the feathers the tawny base of the feather freckled with a few black vermiculations; crown of head slaty blue; forehead black; hind neck, sides of neck, and under surface of body from the lower throat downwards slaty blue; lores and a broad eyebrow white; below the eye a streak of white; behind the eye a black streak; ear-coverts greyish white with five black shaft-streaks; from the fore part of the eye a large black patch, extending on to the ear-coverts and the fore part of the cheeks; hinder cheeks, chin, and sides of throat white; in the centre of the throat a large black patch, somewhat dilated laterally and consisting of elongated plumes; sides of upper breast sandy buff with blackish vermiculations; under tail-coverts tawny buff, with minute blackish vermiculations; under wing-coverts for the most part slaty blue, but the greater series white with a bluish tinge; axillaries slaty blue; quill-lining white: "bill dusky, but pale at the base; tarsi and feet yellow; iris dusky, with the outer ring tawny" (*T. Ayres*). Total length 16 inches, culmen 1·3, wing 13, tail 5·8, tarsus 3·85.

Some specimens in the British and Leyden Museums have the ear-coverts orange-buff instead of white. They are probably the adult females.

Hab. South Africa.

a, b. Ad. sk.	South Africa.	Sir A. Smith.
c, d. Ad. sk.	South Africa.	Earl of Derby [P.].
e. ♂ ad. sk.	Transvaal, April 6 (*T. Ayres*).	Gurney Coll.
f. ♂ ad. sk.	Transvaal, June 21 (*T. E. Buckley*).	Shelley Coll.

2. Trachelotis canicollis.

Otis rhaad (*nec Lath.*), *Rüpp. Syst. Uebers.* p. 110 (1845: Shoa).
Lissotis senegalensis (*nec V.*), *Heugl. Syst. Uebers.* p. 53 (1856: Shoa).
Wato, *Harris, Highl. Ethiop.* ii. p. 417 (1844).
Otis canicollis, *Reichen. Orn. Centralbl.* 1881, p. 79 (Berbera); *id. J. f. O.* 1881, p. 334; *Schalow & Reichen. J. f. O.* 1882, p. 113; *Salvad. Ann. Mus. Genov.* (2) i. p. 214 (1884: Daimbi, Shoa); *Fischer, Zeitschr. ges. Orn.* i. p. 388 (1884: Ngaruku; Kibaradja); *id. J. f. O.* 1885, p. 116 (Massa; Barawa); *Sharpe, Ibis,* 1892,

p. 543 (Machako's); *Emin, J. f. O.* 1891, p. 58 (Steppes of Ugogo); *Reichen. t. c.* p. 142 (Nianguira).

Otis senegalensis (*nec V.*), *Salvad. Ann. Mus. Genov.* (2) i. p. 258 (1884).

Adult. Similar to *T. cærulescens*, but having the under surface of the body white; the long under tail-coverts sandy buff, barred with blackish and minutely freckled with sandy buff: "bill horny whitish, the tips of both mandibles horn-brown, flesh-coloured at the base; iris pale yellow" (*G. A. Fischer*). Total length 22 inches, culmen 1·65, wing 12·5, tail 5·2, tarsus 4·3.

Hab. From Shoa in N.E. Africa to Masai-land.

a, b. ♂ ♀ ad. sk.	Efat, Shoa, April (*Sir W. C. Harris*).	India Museum.

3. Trachelotis senegalensis *.

Otis senegalensis, *Vieill. Enc. Méth.* i. p. 333 (1819); *Heugl. Orn. N.O.-Afr.* ii. pt. i. p. 959 (1873: S. Senaar; Fazogl; S. Kordofan); *Antin. & Salvad. Viagg. Bogos*, p. 140 (1873).

Otis rhaad, *Rüpp. Mus. Senckenb.* ii. p. 230, Taf. 15 (1837); *Strickl. P. Z. S.* 1850, p. 220 (Kordofan).

Eupodotis senegalensis, *Gray, Gen. B.* iii. p. 533 (1845, pt.); *Hartl. Orn. W.-Afr.* p. 206 (1857: Casamance); *Gray, Hand-l. B.* i. p 8, no. 9924 (1871).

Lissotis senegalensis, *Reichenb. Handb., Gall.* tab. cccliii. fig. 2164 (1848).

Trachelotis rhaad, *Bp. C. R.* xliii. p. 416 (1856).

Chlamydotis senegalensis, *Licht. Nomencl.* p. 88 (1854).

Lissotis semitorquata, *Heugl. Syst. Uebers.* p. 53 (1856: Steppes of Schiluk country, and on the Bahr El Abiad).

Adult (type of species). General colour above sandy rufous, obscured with coarse mottlings of brown on the back and scapulars, and with finer dusky vermiculations on the hind neck and upper mantle; all the wing-coverts pale sandy rufous, the greater coverts and bastard-wing feathers broadly tipped with black; primary-coverts and quills black, the former with sandy-rufous bases to the feathers; the primaries white or pale tawny on the inner webs, this increasing largely towards the inner primaries, but not so developed on the secondaries, which appear almost entirely black, the innermost

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* Otis rhaad.

The Rhaad or Saf-saf, *Shaw, Trav. & Obs. Barbary*, pl. ii. p. 252, fig. 2 (1738).

Le Rhaad, *Buff. Hist. Nat. Ois.* ii. p. 61 (1771).

Rhaad Bustard, *Lath. Gen. Syn.* ii. pt. 2, p. 855 (1783).

Otis rhaad, *Lath. Ind. Orn.* ii. p. 660.

The old writer Shaw figures the "Houbara" very distinctly, and his "Rhaad" has generally been referred to *Otis senegalensis*. This, however, is by no means clear, and I think the species intended by Shaw is just as likely to have been *Choriotis arabs*.

secondaries tawny with black tips like the greater coverts, or sandy freckled with brown like the back; lower back, rump, and upper tail-coverts sandy with fine dusky vermiculations, the upper tail-coverts and centre tail-feathers more coarsely mottled and crossed with some more or less complete dusky bands; tail sandy rufous at base, with very minute vermiculations, with a broad band of black at the end and another narrower band of black across the centre of the feathers, the interspace being sandy buff with somewhat strong dusky frecklings; forehead and fore part of crown black, the hinder crown and occiput blue-grey, surrounded by a broad band of black which unites on the nape; lores, a broad eyebrow, entire sides of face, cheeks, ear-coverts, and upper sides of neck white; hind neck and sides of neck, lower throat, and centre of fore neck blue-grey; lower part of hind neck tawny rufous, this colour descending down the sides of the neck on to the chest and sides of the upper breast; chin and upper throat white, followed by a patch of black on the lower throat, extended laterally, and followed by a small white spot; remainder of under surface of body white, with a little sandy tinge on the flanks and long under tail-coverts, and a shade of bluish grey on the chest; under wing-coverts and quill-lining white, tinged with sandy buff: "bill buffish horn-colour, blackish towards the tip; feet and nails yellowish; iris pale yellowish umber" (*Von Heuglin*). Total length about 18 inches, culmen 1·4, wing 11, tail 5, tarsus 3·9.

Hab. From Senegambia to N.E. Africa.

a. Ad. sk. Senegal (*D'Eimville*). Riocour Coll. (Type of species.)

4. Trachelotis barrovii *.

Otis torquata, *Cuvier, Règne Anim.* i. p. 499 (1829: descr. nullâ); *Schl. Mus. Pays-Bas*, Cursores, p. 4 (1865); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 958, note (1873).

Otis barrovii, *J. E. Gray, in Griffith's An. Kingd., Birds*, iii. p. 302 (1829).

Otis senegalensis (*nec V.*), *Gray, List Gralle in Brit. Mus.* p. 36 (1844); *Holub & von Pelz. Beitr. Orn. Südafr.* p. 232 (1882); *Sharpe, ed. Layard's B. S. Afr.* p. 639 (1884).

Eupodotis senegalensis (*nec V.*), *Gray, Gen. B.* iii. p. 533 (1845, pt.); *Layard, B. S. Afr.* p. 285 (1867); *Gurney, Ibis*, 1868, p. 48 (Natal); *Ayres, Ibis*, 1869, p. 298, 1880, p. 265 (Transvaal).

Eupodotis cærulescens (*nec Vieill.*), *Butler, Feilden, & Reid, Zool.* 1882, p. 340 (Natal).

Adult male. Similar to *T. senegalensis* but much darker above, with large blotches of sandy buff, the inner, lesser, and median

* Latham and Gray refer to the "Wild Peacock" of Barrow's Voyage, but give a page on which no mention is made of the bird. I myself have not yet been able to find the correct quotation. Gray's description of his *Otis barrovii*, like nearly every one of those given in Griffith's edition of Cuvier, is poor enough, but I think there can be no doubt that he intended to designate the southern form of *T. senegalensis*.

wing-coverts vermiculated like the back, though not so strongly; some of the inner primaries marked with sandy colour at the base of the inner web, whereas they are entirely black in *T. senegalensis*; the outer tail-coverts without the second median black band, and further distinguished by having the sandy rufous of the hind neck carried up to the black nape without any intervening shade of grey; the black patch on the throat also larger and extending further up towards the chin: "bill yellowish, the culminal ridge dusky; tarsi and feet yellowish white, claws yellowish; the iris pale tawny, gradually assuming dusky umber round the pupil" (*T. Ayres*). Total length 18 inches, culmen 1·4, wing 11·3, tail 4·5, tarsus 3·5.

Adult female. Differs from the male in having the crown of the head blackish, vermiculated with sandy-buff lines, the nape rather more ashy but still vermiculated with black, and followed by a black nuchal patch; the hind neck tawny rufous spreading on to the mantle; lores, eyebrow, sides of face, and ear-coverts sandy buff, speckled with black markings below the eye; underparts the same as those of the male, but with no grey on the chest or on the neck, the black mark on the throat only feebly indicated; on the tail-feathers the second bar always distinct; the upper tail-coverts and centre tail-feathers also with black bars. Total length 17 inches, culmen 1·35, wing 11, tail 4·5, tarsus 3·45.

Young male. Similar to the female, but with bluish grey on the head and neck, and having more frecklings on the lesser and median wing-coverts, the back coarsely freckled and with arrow-head sandy-coloured markings, the primary-coverts sandy rufous mottled with black, but not black at the ends as in the adult female, the inner primaries also mottled, but not such a distinct bar as in the old bird.

Hab. South Africa.

a. ♂ ad. sk.	South Africa.	General Hardwicke [P.].
b. ♂ ad. sk.	Cape Colony.	Sir Andrew Smith [C.].
c. ♂ juv. sk.	S. E. Africa.	J. Rocke, Esq. [P.].
d, *e*. ♂ ♀ ad. sk.	Swaziland, June 16 (*T. E. Buckley*).	Shelley Coll.
f. ♂ (head & neck).	Ingagane, Natal, July 20 (*Savile Reid*).	Shelley Coll.
g, *h*. ♂ ad. sk.	Potchefstroom, Transvaal.	F. A. Barratt, Esq. [P.].
i, *k*. ♂ ad.; *l*. Juv. sk.	Potchefstroom, Oct., Dec. (*T. Ayres*).	Gurney Coll.
m, *n*. ♂ ♀ ad. sk.	Zambesi.	Mrs. Sterling [P.].

9. SYPHEOTIS.

	Type.
Sypheotides, *Lesson*, *R. Z.* 1839, p. 47	S. aurita.
Comatotis, *Reichenb. Syst. Nat. Gallin.* Taf. xxxi. fig. 6 (1850)	S. aurita.

Range. The same as that of the single species of the genus.

1. Sypheotis aurita.

White-chinned Bustard, *Lath. Gen. Syn.* ii. pt. 2, p. 806 (1783).
Passarage Bustard, *Lath. Gen. Syn. Suppl.* p. 228 (1787).
Otis indica, *Gm. Syst. Nat.* i. p. 725 (1788); *Lath. Ind. Orn.* ii. p. 661 (1790); *Miller, Cim. Phys.* tab. 33 (1796); *Vieill. N. Dict. d'Hist. Nat.* xxiv. p. 293 (1818).
Otis aurita, *Lath. Ind. Orn.* ii. p. 660 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxiv. p. 296 (1818); *Temm. Pl. Col.* v. pl. 533 (1832); *Gray, in Griffith's An. Kingd.* iii. p. 304 (1829); *Less. in Bélang. Voy.* pl. 10 (1834); *Jard. & Selby, Ill. Orn.* pls. 40 (♂), 92 (♀); *Hodgs. Icon. ined. Mus. Brit.*, Grallæ, pl. 42, nos. 16, 17; *id. in Gray's Zool. Misc.* p. 85 (1844); *Schl. Mus. Pays-Bas*, Cursores, p. 10 (1865).
Otis atriceps, *Gray, in Griffith's An. Kingd.* iii. p. 304 (1829).
Otis marmorata, *Gray & Hardw. Ill. Ind. Orn.* i. pl. 60 (1832).
Otis fulva, *Sykes, P. Z. S.* 1832, p. 155.
Sypheotides aurita, *Less. Rev. Zool.* 1839, p. 47; *Gray, List Grallæ Brit. Mus.* p. 57 (1844); *Blyth, Cat. B. Mus. As. Soc.* p. 259 (1849); *Irby, Ibis*, 1861, p. 237 (Oudh); *Jerd. B. Ind.* iii. p. 619 (1864); *Gould, B. Asia*, vii. pl. 57 (1866); *Blyth, Ibis*, 1867, p. 163; *Stoliczka, J. A. S. Beng.* xli. p. 250 (1872: Cutch); *Hayes Lloyd, Ibis*, 1873, p. 415 (Kathiawar); *Hume, Str. F.* i. pp. 136, 228 (1873: Karachi); *Adam, t. c.* p. 393 (Sambhur, July), ii. p. 339 (1874: Sambhur); *Ball, t. c.* p. 428 (Chota Nagpur); *Lemess. Str. F.* iii. p. 379 (1875: Sind); *Morgan, Ibis*, 1875, p. 323 (breeding); *Butler, Str. F.* iv. p. 10 (1876: Deesa); *Fairb. t. c.* pp. 262, 266 (Deccan); *Butler, Str. F.* v. p. 231 (1877: Deesa, July to October); *Ball, t. c.* p. 419 (Godaveri district); *Davidson & Wenden, Str. F.* vii. p. 87 (1878: Deccan, breeding); *Murray, t. c.* p. 109 (Sind); *Ball, t. c.* p. 226 (Godaveri); *Hume & Marshall, Game B. Ind.* i. p. 34, pl. 6 (1878); *Hume, Str. F.* viii. p. 111 (1879); *Butler, Cat. B. Sind, etc.*, p. 56 (1879); *id. Cat. B. S. Bomb. Pres.* p. 71 (1880); *Vidal, Str. F.* ix. p. 77 (1880: S. Konkan); *Davidson, Str. F.* x. p. 318 (1882: Khandeish, breeding); *Hume, t. c.* p. 412 (1883: Nilghiris); *Murray, Vertebr. Faun. Sind*, p. 220 (1884).
Eupodotis aurita, *Gray, Gen. B.* iii. p. 533 (1845); *id. Cat. Mamm. etc. Nepal pres. Hodgson*, p. 130 (1846); *id. Hand-l. B.* iii. p. 9, no. 9936 (1871).
Comatotis aurita, *Reichenb. Syst. Nat.* pl. xxxl. fig. 6 (1850); *Bp. C. R.* xliii. p. 416 (1856).
Sypheotis aurita, *Hume, Nests & Eggs Ind. B.* p. 561 (1873); *Swinh. & Barnes, Ibis*, 1875, p. 132 (Mhow; breeding); *Oates, ed. Hume's Nests & Eggs*, iii. p. 380 (1890).

Adult male. General colour above dark sandy buff or ashy, coarsely but definitely vermiculated and mottled with black, and with numerous large spear-shaped markings or bars of black; the dorsal feathers varied with narrow ashy or whitish margins; inner secondaries like the back; lower back, rump, and upper tail-coverts more dingy than the upper back and more finely vermiculated; the upper tail-coverts with well-defined cross-bars of black; tail tawny buff, with four distinct black bands, the light interspaces mottled with black markings; the centre tail-feathers like the

upper tail-coverts, more ashy, freckled with black, and crossed with black bars; all the wing-coverts pure white, the inner median coverts greyish, freckled with blackish lines; all the outer coverts black, the innermost of the median series white, freckled with black; greater coverts yellowish buff, white at the ends, and freckled with black lines, occasionally forming cross-bars; the innermost greater coverts ashy freckled with black on the inner web, white on the outer web like the adjacent median coverts; primary-coverts and quills ochreous, tipped with white, the feathers uniform towards the base, but freckled with black towards the ends, and crossed by two, or at the most three, black bands; inner secondaries more like the back, but banded with black; head and neck all round, as well as the underparts of the body, jet-black, including the decorative plumes of the neck; between the hind neck and the mantle a broad band of white descending on to the sides of the chest; chin and upper throat white; some of the longer under tail-coverts white or sandy buff, mottled with black; under wing-coverts and axillaries black: "the bill pale yellow, somewhat fleshy towards gape, the ridge, tip, and more or less of the upper surface shaded with dusky horny brown; the legs pale, somewhat fleshy yellow, sometimes hoary, sometimes more dusky; iris dull yellow, sometimes very pale, sometimes brownish" (*A. O. Hume*). Total length 15 inches, culmen 1·5, wing 7·9, tail 3·5, tarsus 3·5.

Adult female. Differs from the male in being much more rufous above, the spear-shaped markings wider than in the male and much more of a sandy buff; tail also not so ashy as in the male, more sandy coloured, but similarly barred and vermiculated with black; wings as in the male, except that the coverts which are white in the latter are pale sandy buff in the female, with a few black bars and scanty vermiculations; no white collar across the mantle; the hind neck entirely sandy buff with very minute frecklings; crown of head tawny buff in the centre with a broad black band on each side; the nape tawny, streaked with black; lores, eyebrow, and sides of face sandy buff, with a few black shaft-streaks and a black streak under the eye; throat white, the lower throat and remainder of underparts sandy buff, isabelline on the breast and abdomen; on each side of the throat a long black line of feathers, the fore neck broadly streaked with black; the breast somewhat mottled with black vermiculations, these extending on to the feathers of the sides of the body; under tail-coverts tawny buff, with irregular bars of black; axillaries black, very slightly mottled with sandy buff; the lower major and primary-coverts also blackish, the former with sandy-buff tips; rest of the under wing-coverts isabelline. Total length about 19 inches, culmen 1·75, wing 8·8, tail 4·2, tarsus 3·6.

Young male. At first resembles the female in colour, but gradually assumes the plumage of the male, apparently by a change in the pattern of the feather as well as by a moult.

Hab. Peninsula of India. Mr. Hume writes:—"I do not, as at present informed, consider that either Beluchistan, the Punjab, the N.W. Provinces, north and east of the Jumna, Oudh, Chota Nagpoor,

or any part of Bengal or the countries eastward, can be properly included within its normal range.

a. ♂ ad. sk.	Sindh, "rains."	Hume Coll.
b. ♂ ad. sk.	Kattiawar, July 1.	Col. Hayes Lloyd [P.].
c. ♂ ad. sk.	Deesa, July 15 (*E. A. Butler*).	Hume Coll.
d. ♀ ad. sk.	Sirsa, Aug. 15.	Hume Coll.
e–*s*''. ♂ ad. et imm.; *t*''–a^3. ♀ ad. sk.	Gurgaon Distr., June, July, Aug. (*W. N. Chill*).	Hume Coll.
b^3. ♂ ad. sk.	Etawah, August 8.	Hume Coll.
c^3. ♂ imm. sk.	Oudh.	Pinwill Coll.
d^3. ♂ imm. sk.	Juggernathpur, Oudh, July 9.	Hume Coll.
e^3. ♀ ad. sk.	Sultanpur, Oudh.	Hume Coll.
f^3. ♀ ad. sk.	Lohallar, Jan. 11.	Hume Coll.
g^3–k^3. ♂ ad. et imm.; l^3. ♀ ad. sk.	Nepal.	Hodgson Coll.
m^3. ♀ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
n^3, o^3. ♂ ♀ ad. sk.	Saugor (*Hooper*).	India Museum.
p^3. Ad. sk.	Mhow.	Col. Yerbury [P.].
q^3. ♀ ad. sk.	Mhow.	Colonel Swinhoe [P.].
r^3. ♂ imm. sk.	Neemueh.	Colonel Yerbury [P.].
s^3, t^3. ♂ ♀ ad. sk.	Khandeish.	India Museum.
u^3, v^3, w^3. ♂ ad.; x^3. ♀ ad. sk.	Sholapur, May to Sept. (*J. Davidson*).	Hume Coll.
y^3, z^3, a^4. ad. sk.	Deccan (*Sykes*).	India Museum. (Types of *O. fulva*.)
b^4. ♂ imm.; c^4. ♀ ad. sk.	Madras (*R. G. W. R.*).	Tweeddale Coll.
d^4, e^4. ♂ ♀ ad. sk.	Madras.	Hume Coll.
f^4. ♂ ad. hiem. sk.	Belgaum, Jan. 18 (*E. A. Butler*).	Hume Coll.

10. HOUBAROPSIS.

Type.

Houbaropsis, *Sharpe, Bull. Brit. Orn. Club*, no. ix. p. l (June 1893) ..... H. bengalensis.

Range. Confined to the Indian Peninsula.

1. Houbaropsis bengalensis.

The Indian Bustard, *Edwards, Gleanings*, i. p. 87, pl. 250 (1758); *Lath. Gen. Syn.* ii. pt. 2, p. 804 (1783).

Le Grand Pluvier de Bengale, *Briss. Orn.* v. p. 82 (1760).

Le Churge ou l'Outarde moyenne des Indes, *Buff. Hist. Nat. Ois.* ii. p. 56 (1771).

Otis bengalensis, *Gm. Syst. Nat.* i. p. 724 (1788); *Vieill. N. Dict. d'Hist. Nat.* xxiv. p. 293 (1818); *Less. Traité*, p. 529 (1831); *Gray, List Gralla Brit. Mus.* p. 56 (1844); *Schl. Mus. Pays-Bas*, Cursores, p. 10 (1865).

Otis delicosa, *Gray & Hardw. Ill. Ind. Zool.* i. pls. 61, 62 (1832).

Otis himalayanus, *Gould, Cent. B. Himal.* pls. 73, 74, 75 (1832).
Otis bengalensis vel delicosa, *Hodgs. Icon. med. in Brit. Mus.* pl. 41, no. 115; *id. in Gray's Zool. Misc.* p. 85 (1844).
Eupodotis bengalensis, *Gray, Gen. B.* iii. p. 533 (1845); *id. Hand-l. B.* iii. p. 8, no. 9929 (1871).
Sypheotides bengalensis, *Blyth, Cat. B. Mus. As. Soc.* p. 258 (1849); *Irby, Ibis*, 1861, p. 237 (Oudh); *Jerd. B. Ind.* iii. p. 616 (1864); *Blyth, Ibis*, 1867, p. 162; *Beavan, Ibis*, 1868, p. 388; *Simson, Ibis*, 1882, p. 94.
Chlamydotis himalayana, *Licht. Nomencl.* p. 88 (1854).
Sypheotis bengalensis, *Bp. C. R.* xliii. p. 416 (1856); *Hume, Nests & Eggs Ind. B.* p. 559 (1873); *id. & Marsh. Game B. Ind.* i. p. 23, pl. 5 (1878); *Hume, Str. F.* viii. p. 111 (1879); *Oates, ed. Hume's Nests & Eggs*, iii. p. 378 (1890).

Adult male. General colour above black with sandy mottling, the latter coarse in character and the black taking the form of arrow-head centres to the feathers; the upper scapulars black, forming a patch on each side of the mantle; remainder of scapulars like the back; lower back and rump dark brown, nearly uniform, with very slight indications of sandy mottlings on a few of the feathers; upper tail-coverts also dark brown, but a little more coarsely freckled with sandy buff and occasional cross-bands; tail-feathers black tipped with white, the outer feathers with indications of bluish-grey bands, which become more distinct towards the centre of the tail, where they are mottled with blackish frecklings, the centre feathers sandy buff, mottled with black and crossed by three black bars; entire series of wing-coverts white, as well as the bastard-wing, primary-coverts, and the greater portion of the quills, the major-coverts and quills white, with black shafts for the greater part of their length, the outer primaries black, with white inner webs, the white extending on the inner primaries, which have the shafts and tips black, the inner secondaries white on the outer web, black on the inner one, the inner greater coverts bluish grey mottled with black, and having blackish bases, the innermost secondaries like the back; head and neck all round glossy blue-black, the head crested and the sides of the neck ornamented with a very large frill, which also depends over the fore neck; remainder of under surface of body from the fore neck downwards dull black, the long under tail-coverts mottled with white; under wing-coverts for the most part black, the edge of the wing white, with a conspicuous white base to the lower major-coverts, quill-lining white: "bill dusky, bluish above, bluish grey to yellowish below and somewhat fleshy brown towards gape; feet dirty straw-colour; iris yellow" (*A. O. Hume*). Total length about 22 inches, culmen 1·5, wing 13, tail 5·5, tarsus 5.

Adult female. General colour above black, coarsely freckled with sandy rufous and varied with deep sandy-coloured spear-shaped markings in the centre of the feathers; scapulars very coarsely marked, but otherwise like the back; lower back and rump nearly uniform brown, freckled with sandy buff; upper tail-coverts and centre tail-feathers sandy rufous, coarsely freckled with black and

crossed by distinct black bars, the outer tail-feathers brown, with black frecklings, and crossed by three broad bands of black; lesser wing-coverts like the back, but lighter, and the mesial sandy markings rather paler; median and greater coverts light sandy rufous, paler at the ends and with very few cross-lines or mottlings of black; bastard-wing sandy buff but more thickly mottled with black; primary-coverts and quills black, the former mottled with white at their ends, the primaries with white bands on the inner webs more or less obscured by black mottlings, the secondaries freckled and mottled with sandy buff towards their ends, and having two or even three broad bands of black, the innermost secondaries like the back; crown of the head sandy-coloured, with two broad black bands on each side of the crown, enclosing a mesial band of sandy buff, which like the nape is streaked with black; lores, as well as a broad eyebrow, sides of face, and ear-coverts, sandy buff with a few black spots below the eye; cheeks sandy rufous; chin and throat white, extending down the lower throat; sides of neck sandy buff as also the fore neck, with a line of black-tipped feathers on each side of the white throat; fore neck and hind neck sandy buff, slightly freckled with blackish and with mesial streaks of pale sandy buff; breast and abdomen dull white, with a tinge of sandy colour, especially on the sides of the upper breast, which is freckled with black; under tail-coverts pale sandy buff, with a few blackish mottlings; under wing-coverts blackish, with white tips and sandy buff on the outer webs; axillaries black; quills below blackish crossed by white bars, the latter more or less obscured by white mottlings. Total length about 25 inches, culmen 1·65, wing 14, tail 6·5, tarsus 5·6.

Young males. At first resemble the female, and obtain the black on the head, neck, and under surface, as well as the white on the wings, by a moult.

Hab. Eastern Bengal, the valley of Assam, the Bhútán Dúars, and those portions of Bengal, Oudh, and the north-western provinces lying north of the Ganges (*A. O. Hume*).

a. ♂ ad. sk.	N.W. India.	General Hardwicke [P.]. (Type of *O. delicosa*.)
b. ♂ imm. st.	N.W. India.	Dr. Royle [P.].
c. ♂ imm. st.	N.W. India.	Purchased.
d. ♀ ad. sk.	N.W. India.	Purchased.
e. ♂ ad. sk.	Seetapur.	Tweeddale Coll.
f, g, h. ♂ ad. sk.	Oudh, Dec., Jan.	Hume Coll.
i. ♂ imm.; *k.* ♀ ad. sk.	Purneah, Oudh.	Pinwill Coll.
l. ♀ ad. sk.	Kheree Distr. Oudh, Feb. 19.	Hume Coll.
m. ♂ ad. st.	Nepal Terai.	Capt. Harris [P.].
n–p. ♂ ad.; *q–s.* ♀ ad. sk.	Nepal.	Hodgson Coll.
t–v. ♂ ad. et imm.; *w–y.* ♀ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
z. ♂ imm. sk.	Bhotan (*Pemberton*).	India Museum.

11. HOUBARA.

Type.
Houbara, *Bp. Saggio met. Ucc. Europ.* p. 144 (1831) .. H. undulata.
Chlamydotis, *Less. Rev. Zool.* 1839, p. 47..... H. undulata.

Range. Desert countries of the Mediterranean, ranging from the Canary Islands east to Egypt and Palestine and throughout Central Asia to N. W. India.

Key to the Species.

a. Fore neck and chest bluish grey; crest white with black tips to the feathers ..... *macqueenii*, p. 318.
b. Fore neck and chest white like the rest of the under surface; crest white ..... *undulata*, p. 320.

1. Houbara macqueenii.

Otis houbara (*nec Desf.*), *Bechst. Orn. Taschenb.* pl. 19 (1802); *Naum. Vög. Deutschl.* vii. pl. 170 (1834); *Nordm. in Démid. Voy. Russie mérid.* iii. p. 229 (1840); *Filippi, Viagg. Pers.* p. 351 (1865); *Borggr. Vogelf. Norddeutschl.* p. 106 (1869); *Seebohm, Ibis*, 1882, p. 221 (Astrakhan), 1883, p. 28 (Caucasus); *Radde, Orn. Cauc.* p. 410 (1884).

Otis macqueenii, *Gray & Hardw. Illustr. Ind. Zool.* ii. pl. 47 (1834); *Hutton, J. A. S. Beng.* xvi. p. 786 (1847: Candahar); *Blyth, Cat. B. Mus. As. Soc.* p. 258 (1849); *Gould, B. Asia*, vii. pl. 58 (1851); *Naum. Vög. Deutschl.* Anhang, p. 216 (1853); *Schl. Vog. Nederl.* pl. 207 (1854); *Dubois, J. f. O.* 1856, p. 301, pl. iii.; *Schl. Dier. Nederl., Vogels*, pl. 20. figs. 8, 8 *a* (1861); *id. Mus. Pays-Bas*, Cursores, p. 3 (1865); *Hume, Ibis*, 1868, p. 241 (Punjab); *Harting, Handb. Br. B.* p. 131 (1872); *Gould, B. Gt. Br., Introd.* p. ciii (1873); *Severtz. Turkest. Jevotn.* p. 68 (1873: breeding); *Fallon, Ois. Belg.* p. 144 (1875); *Dresser, B. Eur.* vii. p. 395, pl. 511 (1876); *id. Ibis*, 1876, p. 326; *Blanf. East. Persia*, ii. p. 287 (1876: breeds); *Finsch, Ibis*, 1877, p. 53 (Tarik); *Tacz. Bull. Soc. Zool. France*, ii. p. 154 (1877); *Finsch, Verh. z.-b. Ges. Wien*, xxix. p. 241 (1879: Steppes N. of Saissan); *Loewis, Zool. Gart.* 1881, p. 156 (Livonia); *Swinh. Ibis*, 1882, p. 119 (Afghanistan, Feb.); *Severtz. Ibis*, 1883, p. 72 (Lake Kara-Kul); *Saunders, ed. Yarr. Brit. B.* iii. p. 221 (1883); *Seebohm, Hist. Brit. B.* ii. p. 591, pl. 21 (1884); *Pleske, Mem. Acad. St. Petersb.* (7) xxxvi. p. 50 (1888: Tschinas); *Saunders, Man. Brit. B.* p. 153 (1889); *Reichen. Syst. Verz. Vög. Deutschl.* p. 45 (1889); *Floericke, J.f. O.* 1891, pp. 169, 193 (Prussia).

Houbara macqueenii, *Gray, List Gralle Brit. Mus.* p. 57 (1844); *Bp. C. R.* xliii. p. 416 (1856); *Jerd. B. Ind.* iii. p. 612 (1864); *Degl. & Gerbe, Orn. Eur.* ii. p. 105 (1867); *Blyth, Ibis*, 1867, p. 162; *Stoliczka, J. A. S. Beng.* xli. p. 250 (1872: Cutch); *Hayes Lloyd, Ibis*, 1873, p. 415 (Kathiawar); *Hume, Str. F.* i. p. 227 (1873: Sind); *Adam, t. c.* p. 393 (Sambhur); *Lemess. Str. F.* iii. p. 379 (1875: Sind); *Butler, Str. F.* iv. p. 9 (1876: Ahmedabad-Deesa); *Hume, t. c.* p. 9, note (Jodhpur to Sambhur); *Butler, Str. F.* v. p. 231 (1877: Karachi, Aug.–Feb., Persian Gulf, April; breeding); *Hume & Marshall, Game B. Ind.* i. p. 17, pl. 4 (1878); *Hume, Str. F.* vii. p. 67 (1878: Jodhpur), viii. p. 111 (1879); *Butler, Cat. B. Sind &c.* p. 56 (1879); *Doig, Str. F.* ix. p. 281 (1880: E. Narra; breeding); *Gigl. Ibis*, 1881, p. 208 (Rome,

Nov., Dec.); *B. O. U. List Brit. B.* p. 154 (1883); *Boyd. Consp. Av. Imp. Ross.* p. 65 (1884); *Murray, Vertebr. Faun. Sind*, p. 218 (1884); *Sharpe, Ibis*, 1886, p. 166 (Muscat); *Giyl. Avif. Ital.* p. 365 (1886); *Salvad. Elench. Ucc. Ital.* p. 284 (1887); *St. John, Ibis*, 1889, p. 175 (Baluchistan); *Bureau, Bull. Soc. Zool. France*, xiv. p. 308 (1889); *Gigl. Av. Ital.* 1st Resoc. p. 561 (1889); *Brusina, Motr. &c. (Orn. Croatica)*, p. 86 (1890); *Barnes, Journ. Bomb. Nat. Hist. Soc.* p. 1, pl. 4. fig. 837 (1891).

Macqueen's Bustard, *Yarrell, Brit. B.* Suppl. p. 33 (1845).

Eupodotis macqueenii, *Gray, Gen. B.* iii. p. 533 (1845); *id. Hand-l. B.* iii. p. 9, no. 9938 (1871).

Eupodotis undulata (*nec Jacq.*), *Gray, List Brit. B.* p. 134 (1863).

Adult male. General colour sandy buff minutely freckled with blackish vermiculations, and varied with blotches of black where the feathers are more coarsely vermiculated or spotted with the latter; scapulars like the back; lower back, rump, and upper tail-coverts a little more reddish than the back, the black vermiculations being wider apart and crossed by narrow but definite bars of black; lesser and median wing-coverts like the back, very minutely freckled with blackish lines and varied by a few arrowhead markings of black, the median series paler at the ends; greater coverts whitish externally, sandy buff at the base, and on the inner web, the black frecklings minute and with a small black subterminal mark which is not always present; primary-coverts and primaries black, the former white at the base, the latter for two-thirds of their length, the inner primaries and secondaries black tipped with white, and mottled with white or sandy buff on the inner web, the long inner secondaries like the back; centre tail-feathers resembling the upper tail-coverts and crossed by three black bars, the base of the tail deep sandy buff, the terminal half sandy buff freckled with blackish vermiculations and crossed by two broad bands of bluish grey, and having a white band at the tip; crown of head sandy brown minutely freckled with blackish, and ornamented in the centre by a crest of a few elongated feathers which are white with black tips; occiput and nape greyish white, with dusky frecklings: hind neck covered with down of a sandy-buff colour; on the sides of the crown a lateral crest of white, slightly freckled on the feathers over the eye; lores and feathers round the eye white, with elongated black hair-like shafts to the feathers; sides of face and ear-coverts pale sandy buff with the same blackish shafts; cheeks white, the fore part streaked with black hair-like shafts; chin and upper throat white; sides of neck black, commencing in a streak close behind the ear-coverts and extending into a ruff of stiffened feathers, the basal plumes black, the succeeding ones white, with broad black tips, succeeded by a tuft of feathery white plumes; lower throat and fore neck bluish grey, the former obscured by sandy buff, slightly freckled with black, the plumes of the fore neck elongated bluish grey, with white tips; remainder of under surface of body white, with some freckled feathers on the sides of the upper breast: under tail-coverts white, with a few black cross-bars, the long ones sandy buff on the outer

webs with more or less black frecklings, all the under tail-coverts with a concealed tinge of pink at the base; under wing-coverts and axillaries, as well as the quill-lining, pure white: "bill bluish or dusky above, paler, usually greenish or yellowish, on gape and lower mandible; feet pale yellow, never clean and bright, mostly with a dingy or greenish or plumbeous tinge, at times creamy; iris varying from pale to bright yellow" (*A. O. Hume*). Total length about 28 inches, culmen 1·8, wing 15·7, tail 9·5, tarsus 4·9.

Adult female. Differs from the male in being very much smaller, and in having the crest and the ruff of the neck more feebly developed, the freckling on the fore neck and lower throat appearing to be rather coarser than in the male. Total length 23 inches, culmen 1·65, wing 16, tail 7, tarsus 3·7.

Young birds. Can always be recognized from the adult female, which they most resemble, by the sandy-coloured arrowhead markings which pervade the whole of the upper plumage. The frill is always very small, the crest on the head is represented only by a few elongated feathers, which are only recognized by somewhat coarser black frecklings. The grey on the fore neck is almost obscured by sandy frecklings, and the white of the primaries is distinctly inclined to sandy buff; in some specimens there is an indication of a black band on the feathers of the fore neck.

Hab. Throughout the plains portions of the Punjab, Rajputana north of the Arvalis, Northern Guzerat, Cutch, and the northern parts, at any rate, of Kathiawar and Sindh (*A. O. Hume*). Central Asia, eastwards into Persia. It has occurred accidentally in many parts of Europe.

a. Ad. st.	India.	
b. ♀ imm. sk.	Abdul Rahman, Afghanistan, Feb. 12.	Colonel Swinhoe [P.].
c. Imm. sk.	N.W. India.	General Macqueen [P.]. (Type of species.)
d, e. ♂ ♀ ad. sk.	Hissar, Punjab, Dec. (*J. Biddulph*).	Tweeddale Coll.
f.–*g'*. ♂ ad. et juv.: *h'*–*m''*. ♀ ad. et juv. sk.	Sirsa, Punjab, Cold season.	Hume Coll.
n'', *o''*. ♂ ♀ ad. sk.	Gurgaon District, Feb. (*A. O. H.*).	Hume Coll.
p'', *q''*. ♀ juv. sk.	Gurgaon District, Feb., March (*W. N. Chill*).	Hume Coll.
r''. Juv. sk.	Jodhpur (*A. O. H.*).	Hume Coll.
s''. ♀ imm. sk.	Karachi, Feb. 18 (*E. A. Butler*).	Hume Coll.
t''. Ad. sk.	Muscat.	Colonel Miles [P.].
u''. Juv. st.	[Central Asia.]	Purchased.

2. Houbara undulata.

Le Houbara ou Petite outarde huppée d'Afrique, *Buff. Hist. Nat.* ii. p. 59 (1771).

Rufled Bustard, *Lath. Gen. Syn.* ii. pt. 2, p. 805 (1783).

Psophia undulata, *Jacq. Beytr.* p. 24, pl. 9 (1784); *Gm. Syst. Nat* p. 721 (1788).

Otis houbara, *Desf. Mém. de l'Acad. Roy. Sci.* 1787, p. 496, pl. x.; *Gm. Syst. Nat.* i. p. 725 (1788); *Vieill. N. Dict. d'Hist. Nat.* xxiv. p. 293 (1818); *Temm. Man. d'Orn.* ii. p. 509 (1820); *Webb & Berth. Orn. Canar.* p. 30 (1841); *Werner, Atlas,* Coureurs, pl. 4 (1827); *Brehm, Vög. Deutschl.* p. 534 (1831); *Vieill. Gal. Ois.* ii. pl. 227 (1834); *Rüpp. Mus. Senck.* ii. p. 242 (1837); *Gould, B. Eur.* iv. pl. 268 (1837); *Keys. u. Blas. Wirb. Eur.* p. lxvii (1840); *Bolle, J. f. O.* 1855, p. 174 (S. Lanzarote), 1857, p. 334 (Fuerteventura); *Linderm. Vög. Griechenl.* p. 127 (1860); *Wright, Ibis,* 1864, p. 140 (Malta); *Sundev. Sv. Fogl.* pl. lxxv. fig. 3 (1869); *Doderl. Avif. Sicil.* p. 171 (1869); *Saunders, Ibis,* 1875, p. 385 (Andalucia); *Gurney, t. c.* p. 296 (Algeria); *Shelley, B. Egypt,* p. 225 (1872); *Godman, Ibis,* 1872, p. 219 (Canaries); *Tristr. Faun. & Flor. Palest.* p. 127 (1884); *Koenig, J. f. O.* 1888, p. 267 (Tunis).

Undulated Trumpeter, *Lath. Gen. Syn. Suppl.* ii. p. 225 (1787: Tripoli).

Chlamydotis houbara, *Less. Rev. Zool.* 1839, p. 47; *Gray, List Gen. B.* p. 64 (1840); *Licht. Nomenel. Av.* p. 88 (1854).

Houbara undulata, *Gray, List Gen. B.* p. 84 (1841); *id. List Gralla Brit. Mus.* p. 57 (1844); *Rüpp. Syst. Uebers.* p. 110 (1845); *Heugl. Syst. Uebers.* p. 53 (1856); *Bp. C. R.* xliii. p. 416 (1856); *Salvin, Ibis,* 1859, p. 353 (E. Atlas); *Tristr. Ibis,* 1860, p. 76 (Sahara); *Loche, Expl. Sci. Algér., Ois.* ii. p. 254 (1867); *Salvad. Faun. Ital., Ucc.* p. 196 (1871); *Irby, B. Gibr.* p. 153 (1875); *id. Ibis,* 1879, p. 345 (Malaga); *Gigl. Ibis,* 1881, p. 184 (Malta); *id. Avif. Ital.* p. 364 (1886); *id. ibid.* 1st Resoc. p. 561 (1889); *Salvad. Elench. Ucc. Ital.* p. 283 (1887).

Otis hubara, *Mühle, Beitr. Orn. Griechenl.* p. 90 (1844); *Schl. Mus. Pays-Bas,* Cursores, p. 3 (1865: Tripoli); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 961 (1873).

Otis houabara, *Schl. Rev. Crit.* p. lxxx (1844, pt.).

Eupodotis houbara, *Gray, Gen. B.* iii. p. 553 (1845); *id. Hand-l. B.* iii. p. 9, no. 9937 (1871).

Otis ornata, *Brehm, Vogelf.* p. 278 (1855).

Houbara houbara, *Degl. & Gerbe, Orn. Eur.* ii. p. 103 (1867); *Hartert, Kat. Vög. Senckenb. Mus.* p. 208 (1891).

Otis undulata, *Dresser, B. Eur.* vii. p. 391, pl. 510 (1876); *Reid, Ibis,* 1888, p. 76 (Canaries); *Meade-Waldo, Ibis,* 1889, pp. 9, 11 (Fuerteventura).

Adult male. Similar to *H. macqueenii,* but much more broadly and coarsely banded with black on the back; the crown of the head dark brown, with a median crest of white feathers; the patch of long feathers on the fore neck white, instead of bluish grey, and the plumes composing it much longer and more dependent: "bill greyish brown; tarsi and feet greenish; iris very pale greenish" (*Loche*). Total length about 30 inches, culmen 1·5, wing 14·8, tail 8·1, tarsus 3·75.

Adult female. Smaller than the male, with the crest-feathers and breast-shield less developed.

Hab. Countries bordering the Mediterranean, and the Canary Islands, extending eastwards to Armenia (*Dresser*).

a. Ad. st.	Spain.	Purchased.
b. Ad. sk.	Tunis.	L. Fraser [C.].
c. Imm. sk.	Tripoli, Oct. 27 (*H. Warrington*).	Gould Coll.
d. Juv. sk.	Egypt, June.	Purchased.
e. Imm. sk.	Alexandria, Dec. 2.	Tweeddale Coll.

12. EUPODOTIS.

	Type.
Eupodotis, *Less. Rev. Zool.* 1839, p. 47	E. arabs.
Choriotis, *Bp. Ann. Sci. Nat. Paris* (4) i. p. 148 (1854)	E. arabs.

Range. Africa and Arabia; Indian Peninsula; Australia.

Key to the Species.

a. No black patch across the chest or on the sides of the latter; wing-coverts white at the ends, the black subterminal bars nearly obsolete or absent altogether; bars on neck faintly indicated ..... *arabs*, p. 322.

b. A black patch across the chest, or on the sides of the latter.

a'. Greater wing-coverts white, freckled with black, tipped with white, before which is a very broad and distinct black bar ..... *kori*, p. 324.

b'. Greater wing-coverts ashy black, with a white spot at the ends ..... *edwardsi*, p. 325. / *australis*, p. 328.

1. Eupodotis arabs.

Arabian Bustard, *Edwards, Nat. Hist. B.* i. p. 12, pl. 12 (1743); *Lath. Gen. Syn.* ii. pt. 2, p. 801 (1783).

Autruche volant du Sénégal, *Adanson, Voy. Sénég.* 4to, p. 127 (1757).

L'Outarde d'Arabie, *Briss. Orn.* v. p. 30 (1760).

Otis arabs, *Linn. Syst. Nat.* i. p. 264 (1766); *Gm. Syst. Nat.* i. p. 723 (1788); *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 295 (1818); *Cretzschm. in Rüpp. Atlas*, Taf. 16 (1826); *Rüpp. Mus. Senckenb.* ii. p. 215 (1834); *id. Syst. Uebers.* p. 110 (Kordofan; Nubia; Abyssinia); *Levaill. jun. Expl. Sci. Algér., Ois.* pl. 10 (1850); *Hartl. Orn. W.-Afr.* p. 208 (1857: Senegal); *Heugl. Ibis*, 1859, p. 344 (Habab; Samhar); *Schl. Mus. Pays-Bas*, Cursores, p. 8 (1865: Senegal); *Drake, Ibis*, 1867, p. 429 (Mogador); *Finsch, Tr. Z. S.* vii. p. 294 (1870: Asoos; Ain); *Heugl. Orn. N.O.-Afr.* ii. pt. 1, p. 946 (1873: S. Arabia; Dahlak Isl.; Suakin to Danakil Coast); *Koenig, J. f. O.* 1888, p. 265.

Le Lohong ou l'Outarde huppée d'Arabie, *Buff. Hist. Nat. Ois.* ii. p. 52 (1771).

Otis abyssinica, *J. E. Gray in Griffith's ed. Cuvier An. Kingd., Birds*, iii. p. 304 (1829).

Eupodotis arabs, *Gray, List Grallæ in Brit. Mus.* p. 58 (1844); *id. Gen. B.* iii. p. 533 (1845); *Reichenb. Handb., Gall.* tab. cclviii. figs. 2180–81 (1848); *Brehm, J. f. O.* 1853, Extrah. p. 101; *Heugl. Syst. Uebers.* p. 50 (1856: Senaar to S. Nubia; White Nile; Sobat); *Gray, Hand-l. B.* iii. p. 8, no. 9922 (1871); *Shelley, B. Egypt*, p. 227 (1872); *Yerbury, Ibis*, 1886, p. 20 (Aden); *Barnes, Ibis*, 1893, p. 168 (Aden).

Choriotis arabs, *Bp. C. R.* xliii. p. 416 (1856); *Loche, Expl. Sci. Algér., Ois.* ii. p. 256 (1867: Algiers); *Salvad. Ann. Mus. Genov.* (2) i. pp. 258, 273 (1884: Shoa).

Otis (Eupodotis) arabs, *Blanf. Geol. & Zool. Abyss.* p. 427 (1870: Cairo, 3000 feet).

Adult male. General colour above sandy brown, minutely freckled with blackish vermiculations; upper tail-coverts like the back, but a little more coarsely vermiculated and with an indistinct edging or spot of white at the tip; wing-coverts like the back, a little more coarsely vermiculated and having triangular spots of white at the ends, the median series broadly tipped with white, the greater series also tipped with white and having the inner webs for the most part white, the outer webs sandy brown vermiculated with blackish frecklings, which are more scattered on the inner web than the outer, the latter having a subterminal shade of blackish brown or bluish grey; bastard-wing like the major coverts; primary-coverts brown with a bluish-grey shade, indistinctly freckled with sandy buff and tipped with white; quills blackish, with the greater part of the inner web white on the inner primaries; the secondaries brown with a bluish-grey shade, tipped with white and crossed with indistinct bars of white more or less broken up with dusky mottlings, the white increasing in extent towards the inner secondaries, which are coloured like the back and freckled in the same manner; centre tail-feathers sandy brown with coarse vermiculations of black, the concealed basal half of the feathers banded with white, the remainder of the under feathers for the most part white banded with bluish grey or brown near the base and having a broad subterminal band of sandy brown, freckled with blackish lines and sometimes shaded with greyish blue, the ends of the feathers white, before which is a very distinct shade of black; crown of head greyish white with fine black frecklings, the sides of the crown bordered by a band of black broadening out behind the level of the eye and meeting on the nape, the posterior feathers of this band being elongated and narrow, as also are the posterior greyish feathers of the crown; lores and a distinct eyebrow white, as also the feathers below the eye; sides of face, cheeks, throat, hind neck, and sides of neck, as well as the fore neck, ashy white, distinctly banded with ashy blackish everywhere except on the lower throat, where the cross markings are finer; ear-coverts ashy white with obsolete dusky bars; fore part of cheeks and chin white; remainder of under surface of body from the fore neck downwards pure white; under wing-coverts white, but distinctly varied with dusky cross bars; axillaries pure white; quills below blackish, with an ashy-white quill-lining: "bill horny buff, with the culmen dusky; feet ochre-yellow: iris yellowish umber-brown" (*Heuglin*). Total length about 36 inches, culmen 3·6, wing 23·2, tail 13, tarsus 7·9.

Adult female. Similar to the male, but very much smaller. Total length about 29 inches, culmen 3·1, wing 19, tail 8·4, tarsus 5·5.

Hab. Northern and North-eastern Africa to Arabia.

a. ♀ ad. st.	Abyssinia.	Dr. Rüppell [C.]
b. ♂ ad. sk.	Abyssinia.	Dr. Rüppell [C.].
c ♀ ad. sk.	Annesley Bay, Dec. 29.	W. T. Blanford, Esq. [C.].
d. ♀ ad. sk.	Asoos, Bogos-land, July 2 (*W. Jesse*).	Tweeddale Coll.
e. ♂ ad. sk.	Ain, Bogos-land, July 5 (*W. Jesse*).	Tweeddale Coll.
f. Ad. sk.	Suakim.	Surgeon-Capt. R. H. Penton [P.].
g. Ad. sk.	Haith-al-him, Aden, March 19 (*Col. Yerbury*).	Hume Coll.
h. ♂ ad.; *i*, *k*. ♀ ad. sk.	Lahej, S. Arabia, Dec.	Col. Yerbury [P.].
l. Ad. sk.	Mogador.	Capt. Taylor [P.].

2. Eupodotis kori*.

Otis kori, *Burch. Trav. S. Afr.* i. pp. 393, 402 (1822); *Rüpp. Mus. Senckenb.* ii. p. 213, pl. xiii. (1834); *Chapm. Trav. S. Afr.* ii. App. p. 413 (1868); *Murie, P. Z. S.* 1868, p. 471; *Finsch & Hartl. Vög. Ostafr.* p. 611 (1879); *Bocage, Orn. Angola*, p. 415 (1881: Humbe); *Butler, Feilden, & Reid, Zool.* 1882, p. 339 (Natal); *Fischer, Zeitschr. ges. Orn.* i. p. 387 (Kiwangaine); *id. J. f. O.* 1885, p. 116 (Little Aruscha; Masai-land; Galla-land); *Sharpe, ed. Layard's B. S. Afr.* p. 632 (1884); *Reichen. J. f. O.* 1887, p. 48 (Kibaia); *Bryden, Kloof & Karroo*, p. 319, pl. xiv. fig. 2 (1889).

Eupodotis kori, *Gray, List Gralle Brit. Mus.* p. 58 (1844); *Reichenb. Handb., Gall.* tab. cclix. figs. 2186–87 (1848); *Gurney in Anderss. B. Dam.-Ld.* p. 258 (1872); *Buckley, Ibis*, 1876, p. 133 (Matabele); *Holub & Von Pelz. Beitr. Orn. Südafr.* p. 234 (1882); *Shelley, Ibis*, 1882, p. 361 (Mashona-land).

Eupodotis cristata (*nec Scop.*), *Gray, Gen. B.* iii. p. 533 (1845); *Layard, B. S. Afr.* p. 283 (1867); *Cab. in Von der Decken's Reis.* iii. p. 45 (1869); *Gray, Hand-l. B.* iii. p. 7, no. 9919 (1871); *Ayres, Ibis*, 1877, p. 346 (Transvaal).

Choriotis cristata (*nec Scop.*), *Bp. C. R.* xliii. p. 416 (1856).

Otis cristata, *Salvad. Ann. Mus. Genov.* (2) i. p. 213 (1884: Falls of Kataba), vi. p. 309 (1888: Ghermi, Shoa).

Adult male. General colour above dark sandy brown, with the usual blackish vermiculations and with a slight greyish shade, some of the feathers of the mantle and upper back rather more blackish; lower back, rump, and upper tail-coverts like the back, the latter rather more coarsely freckled; lesser wing-coverts like the back; median coverts for the most part white,

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* The following synonymy has been referred to the present species, but it has also been considered to belong to *E. edwardsi*. In reality Sonnerat's figure is so bad that it would do for either species.

Le Paon Sauvage de l'isle de Luçon, *Sonn. Voy. Nouv. Guin.* p. 86, pl. 49 (1776).

Charadrius cristata, *Scop. Del. Flor. et Faun. Insubr.* ii. p. 93 (1783).

Otis leuconiensis, *Vieill. Enc. Méth.* i. p. 332 (1820).

coarsely mottled with black or grey frecklings, and having a broad black subterminal bar before the white tip; greater coverts also like the median, but more thickly mottled with black or grey vermiculations; bastard-wing like the median or greater coverts, but the subterminal bar not so strongly indicated; primary-coverts ashy brown, the inner ones mottled and broadly tipped with white; quills brown, the two outer ones scarcely freckled with white on the outer web, but the inner ones becoming more white on the inner web, barred with bluish grey and tipped with white, some of the inner primaries chequered with sandy buff on the outer webs; secondaries bluish grey, everywhere mottled with white, the feathers tipped white, before which is a subterminal bar of blackish brown, innermost secondaries like the back; tail-feathers ashy brown at the base, crossed by two broad bands of white, which are separated from each other by bands of black, one broad and one narrow, the latter followed by an indistinct white band which merges into the sandy-brown ending of the tail, this portion having a narrow band of black and a much broader subterminal band of black, finishing with a white end to the feather, the whole of the sandy-brown marginal portion of the feather being coarsely freckled with black, the white bands having also a few indications of dusky mottlings; crown of head strongly crested, black, with a greyish band of feathers down the centre; the nape and sides of hinder crown greyish white barred with black, exactly like the whole of the neck; sides of face, throat, a streak over the eye, a patch in front of the eye, fore part of cheeks, and chin white; on the fore neck, partly concealed by the long barred feathers of the lower throat, is a crescentic band of black, the sides of the upper breast also marked with black; remainder of under surface white, including the axillaries and under wing-coverts; lower primary-coverts ashy freckled with white, as also the lining of the quills: "bill light horn-colour; feet light yellowish; iris lemon-yellow" (*Antinori*). Total length about 52 inches, culmen 4·9, wing 30·9, tail 13·8, tarsus 8·55.

Adult female. Much smaller than the male. Total length about 40 inches, culmen 3·2, wing 20·3, tail 10, tarsus 6·4.

Hab. South Africa, on the west to Benguela, and north to Eastern Africa and Shoa.

a. ♀ ad. sk.	South Africa.	J. Rocke, Esq. [P.].
b. ♂ ad. sk.	South Africa.	Capt. Alexander [P.].
c. Head.	Lydenburg District, Transvaal.	Henry Glynn, Esq. [P.].
d. ♀ ad. sk.	Kilimanjaro.	H. C. V. Hunter, Esq. [P.].
e. Ad. sk.	[Abyssinia.]	Purchased.

3. Eupodotis edwardsi.

Otis edwardsii, *Gray in Hardw. Ill. Ind. Zool.* i. pl. 59 (c. 1830); *Schl. Mus. Pays-Bas*, Cursores, p. 8 (1865); *Adam, Str. F.* i. p. 393 (1873: Sambhur), ii. p. 339 (1874).

Otis nigriceps, *Vigors, P. Z. S.* 1831, p. 35; *Sykes, P. Z. S.* 1832, p. 115; *Gould, Cent. B. Himal.* pl. 72 (1832); *Hodgs. Icon. ined. in Brit. Mus.* Grallæ, pl. 43. no. 778; *id. in Gray's Zool. Misc.* p. 85 (1844).

Eupodotis edwardsi, *Gray, List Grallæ Brit. Mus.* p. 58 (1844); *id. Gen. B.* iii. p. 533 (1845); *Blyth, Cat. B. Mus. As. Soc.* p. 258 (1849); *Licht. Nomencl. Av.* p. 88 (1854); *Jerd. B. Ind.* iii. p. 607 (1864); *Blyth, Ibis*, 1867, p. 162; *Beavan, Ibis*, 1868, p. 387 (Gwalior); *Gray, Hand-l. B.* iii. p. 7, no. 9920 (1871); *Stoliczka, J. A. S. Beng.* xli. p. 250 (1872: Cutch); *Hayes Lloyd, Ibis*, 1873, p. 415 (Kathiawar); *Hume, Nests & Eggs Ind. B.* p. 557 (1873); *id. Str. F.* i. pp. 136, 227 (1873: Sind); *Butler, Str. F.* iv. p. 9 (1876: Dacca); *Ball, t. c.* p. 234 (Sumbulpur district); *Fairb. t. c.* pp. 262, 266 (Ahmednuggur); *Hume & Marsh. Game B. Ind.* i. p. 7, pl. 3 (1878); *Davidson & Wenden, Str. F.* vii. p. 87 (1878: Deccan); *Ball, t. c.* p. 226; *Tweedie, t. c.* p. 528 (Oudh); *Hume, Str. F.* viii. p. 111 (1879); *Wilson, t. c.* p. 490 (Mozuffernuggur); *Butler, Cat. B. Sind etc.* p. 56 (1879); *id. Cat. B. S. Bomb. Pres.* p. 71 (1880); *W. Elliot, P. Z. S.* 1880, p. 486 (gular pouch); *Davidson, Str. F.* x. p. 318 (1882: Khandeish); *Murray, Vertebr. Faun. Sind*, p. 217 (1884); *Oates, ed. Hume's Nests & Eggs*, iii. p. 375 (1890).

Eupodotis leuconiensis, *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 130 (1846).

Choriotis edwardsi, *Bp. C. R.* xliii. p. 416 (1856).

Adult male. General colour above dull sandy buff, everywhere finely vermiculated with blackish, some of the feathers with a rufescent tinge, but without any black or sandy-buff blotches; scapulars like the back; lower back, rump, and upper tail-coverts like the rest of the back, the latter with narrow white ends; lesser wing-coverts like the back, but with a slightly more rufescent tinge; median coverts black, tipped with white; greater coverts black with white tips, but the inner ones mottled with white towards the base and shaded with bluish grey, sometimes occupying the greater part of the feather; bastard-wing brown, shaded with grey and tipped with white; primary-coverts slaty blue and tipped with white; the primaries slaty blue, the long primaries blackish, with notches and bars of white on the inner ones, which are also tipped with white, these bars being irregular in shape; secondaries slaty blue, tipped with white and irregularly mottled with white towards the base of the outer web, the innermost secondaries like the back, but with a certain grey shade; tail-feathers like the back but somewhat more coarsely vermiculated and shaded with grey; about the middle of the tail a band of dusky blackish and two other bands of whitish obscured with dusky mottlings; crown of head and nuchal crest black; over the eye a few white streaks, but no distinct eyebrow; neck all round, lores, sides of face, throat, and under surface of body pure white; sides of breast with a few vermiculated sandy feathers and with a large black patch which forms a somewhat broken collar on the fore neck and extends with a few blackish feathers round the upper part of the mantle; on the lower flanks a large patch of black feathers; under tail-coverts black with white bands at the end, some of the feathers bluish grey freckled with

brown on the margins and with a sub-terminal bar of black; under wing-coverts and axillaries white; the lower primary-coverts ashy, minutely freckled, the edge of the wing black with whitish tips to the feathers: "bill greyish brown to greyish white, dark at tip and near the forehead and often a little yellowish below; legs and feet generally yellowish creamy, a little dingy on the toes, sometimes with a light fleshy tinge or with a pale grey or plumbeous tinge; iris pale to bright yellow. Total length 45 to 50 inches, wing 24·5 to 29, tarsus 7·5 to 8·37; weight 17 to 22 pounds" (*A. O. H.*).

Adult female. Very much smaller than the male, with broader white tips and more white bars on the wing-coverts and quills, and further distinguished by having a broad white eyebrow, and by the blackish vermiculations on the throat and fore neck; the tail has a very distinct subterminal band of black. "Total length 36 to 38 inches, wing 20 to 22, tarsus 5·5 to 6·8; weight 8 to 10 pounds" (*A. O. H.*).

Nestling. Sandy-coloured above with the usual vermiculations, but distinguished by numerous large triangular spots or bars of sandy buff, preceded by a mark of black, which imparts a variegated appearance to the whole of the upper surface; the head is black, the feathers tipped with bars of pale sandy colour; there is a broad eyebrow of creamy white, as in the old female; the underparts are buffy white, with indications of dusky cross bars on the throat and chest; the markings on the wing are much more coarse and broken up into mottlings than in the adult bird, and the creamy-white tips to the coverts largely predominate, giving a much whiter appearance to the wing.

The greater number of the specimens in the Hume Collection were killed in the cold season in the Punjab, and they are all apparently fully-moulted birds. The younger individuals may apparently be distinguished by the coarse freeklings of the upper surface and by a greater amount of black at the base of the dorsal feathers. This sometimes causes a slightly variegated appearance, but the sandy spots which distinguish the young birds seem to entirely disappear at the first moult and are never seen again afterwards.

The typical specimen of *E. edwardsi* of Gray, which must have formed the original of the native drawing in Hardwicke's 'Illustrations,' has not passed into the possession of the Museum. The figure is taken from a female bird, and the name *edwardsi* is founded on the illustration in the above-named work.

Hab. Plains of Indian Peninsula.

a. Juv. sk.	India.	India Museum.
b. ♀ ad. sk.	Near Kotri, River Indus (*Col. Butler*).	Hume Coll.
c–z. ♂ ad. et imm.; *a′–f′*. ♀ ad. et imm.; *g′–k′*. Juv. et pull. sk.	Sirza District, cold season.	Hume Coll.

l', *m'*. ♂ ad. sk.	Hissar, Oct.	Hume Coll.
n'. ♀ ad. sk.	Jhansie, Aug. (*A. O. H.*).	Hume Coll.
o', *p'*. ♂ ♀ ad. sk.	N.W. Provinces.	Pinwill Coll.
q', *r'*. ♂ ad.; *s'*. ♀ ad. sk.	Gwalior, July.	Hume Coll.
t', *u'*. ♂ ♀ ad.; *v'*. Juv. sk.	Deccan (*Sykes*).	India Museum.
w', *x'*. ♂ ad. sk.	Khandeish.	India Museum.

4. Eupodotis australis.

Otis australis, *J. E. Gray in Griffith's ed. Cuvier, An. Kingd., Birds*, iii. p. 305 (1829); *Schl. Mus. Pays-Bas*, Cursores, p. 9 (1865); *Murie, P. Z. S.* 1868, p. 471, pl. xxxvi.

Otis australasiana, *Gould, P. Z. S.* 1860, p. 176; *id. B. Austr.* fol. vi. pl. 4 (1848); *Reichenb. Vög. Neuholl.* p. 236 (1850); *Ramsay, Ibis*, 1867, p. 134 (gular pouch).

Eupodotis australis, *Gray, Gen. B.* iii. p. 533 (1845); *Reichenb. Handb., Gall.* tab. cclix. figs. 2188-90 (1848); *Gray, Hand-l. B.* iii. p. 8, no. 9921 (1871); *Ramsay, Tab. List Austr. B.* p. 19 (1888).

Choriotis australis, *Bp. C. R.* xliii. p. 416 (1856); *Gould, Handb. B. Austr.* ii. p. 208 (1865); *French, Vict. Nat.* 1891, p. 11; *North, Nests & Eggs Austr. B.* p. 296 (1889).

Adult male. General colour like that of *E. edwardsi*, but rather darker and more shaded with slaty grey on the upper parts; the lower throat dull ashy white freckled with dusky vermiculations in the shape of wavy cross lines on the rest of the throat and neck: "bill straw-white, with olive and black culmen; legs and feet straw-yellow; iris greenish white, eyelash pale olive-yellow" (*J. Gould*). Total length about 48 inches, culmen 3, wing 26, tail 10·5, tarsus 7·2.

Hab. Australia.

a. ♂ ad. sk.	Australia.	Purchased.

ADDENDA.

During the progress of the present volume through the press the following additions and corrections have become necessary :—

Add :— Page 10. **Rallus longirostris.**

Rallus longirostris, *Sharpe, Notes Leyden Mus.* xv. p. 266 (1893).

Page 13. Add :—

Rallus cubanus.

Rallus longirostris cubanus, *Chapm. Bull. Amer. Mus. N. H.* iv. p. 288 (1892).

Described as being intermediate in colour between *Rallus caribæus* and *R. scottii*.
Hab. Cuba.

Add :— Page 24. **Rallus indicus.**

Rallus aquaticus indicus, *Hartl. Abh. nat. Ver. Bremen*, xii. p. 332 (1892 : Tientsin).

Add :— Page 30. **Limnopardalus sanguinolentus.**

Young. Browner than the adult, with a shorter bill and whitish cheeks and throat ; under surface of body ashy grey, overshaded with brown ; under tail-coverts isabelline brown, with black centres to the feathers. (*Mus. Lugd.*)

Page 31. **Limnopardalus nigricans.**

Add "Surinam (*Mus. Lugd.*)" to the habitat.

Add :— Page 33. **Hypotænidia striata.**

Hypotænidia striata, *Sharpe, Notes Leyden Mus.* xv. p. 267 (1893).

Page 37. **Hypotænidia brachypus.**

Add :—

Rallus pectoralis, *Schl. Mus. Pays-Bas*, Ralli, p. 12 (1865).

Page 38. Add:—

2 *a*. Hypotænidia muelleri.

Rallus muelleri, *Rothsch. Bull. Brit. Orn. Club*, no. viii. p. xl (April 1893).

Adult. Upper surface of head, occiput, and neck brownish red, faintly and irregularly striated with black; back and rump bright chestnut, with the centres of the feathers black; wings brownish black, faintly edged with rufous grey; cheeks reddish grey; centre of the throat reddish white; lower part of throat and breast rufous grey; flanks, abdomen, and under tail-coverts black, each feather tipped with pale rufous, and with two white bands; tail rufous, with indistinct grey bands. Wing 3·3 inches, culmen 1·1, tarsus 1·1, central toe with claw 1·3, tail 1·3. (*Mus. Stuttgardt.*)

Hab. Auckland Island, south of New Zealand.

This Rail has been described by the Hon. Walter Rothschild while the present volume was going through the press. It is an island form of *H. brachypus*, with the wing-coverts elongated and the feathers of the lower back and rump much puffed out, as in the flightless Weka Rails (*Ocydromus* and *Eulabeornis*). Its tawny colour distinguishes it at once from *H. brachypus*. The description is copied from that given by Mr. Rothschild.

Add:— Page 45. Hypotænidia celebensis.

Hypotænidia celebensis, *Sharpe, Notes Leyden Mus.* xv. p. 268 (1893).

Page 45. Add:—

5 *a*. Hypotænidia jentinki.

Hypotænidia jentinki, *Sharpe, Notes Leyden Mus.* xv. p. 268 (1893).

Adult female. Similar to *H. celebensis*, but much more rufescent on the upper surface and especially more rufous on the wings and tail; the centre of the head blackish brown, much darker than in *H. celebensis*; lores, ear-coverts, and sides of crown jet-black; under surface of body also black, the white bars very narrow as compared with *H. celebensis*. Total length 11 inches, culmen 1·7, wing 6·1, tail 2·3, tarsus 2·15, middle toe and claw 2·15. (*Mus. Lugd.*)

In dimensions this bird does not differ very much from *H. celebensis*, but is generally of a stouter build. It is very nearly allied to *H. saturata*, Salvadori, from New Guinea, and has a black throat like that species, but is easily distinguished by its rufous-tinted upper surface.

Hab. Island of Sula Mangola.

Add:— Page 47. Cabalus dieffenbachii.

Cabalus dieffenbachii, *Forbes, Ibis*, 1893, pp. 532, 544.

Page 48. Add:—

1*a*. Cabalus modestus. (Plate VI.*)

Rallus modestus, *Hutton, Ibis,* 1872, p. 247, & 1873, pp. 349-352; *id. Tr. N. Zeal. Inst.* v. p. 223 (1873).
Cabalus modestus, *Hutton, Tr. N. Zeal. Inst.* vi. p. 108 (1874); *Buller, B. N. Zeal.* 2nd ed. ii. p. 123 (1888); *Forbes, Bull. Brit. Orn. Club,* no. iv. p. xx (1892); *id. t. c.* p. xlv (1893); *id. Ibis,* 1893, pp. 532, 544, pl. xiv. fig. 4 (egg).
Cabalus dieffenbachii, juv., *Sharpe, Cat. B. Brit. Mus.* xxiii. p. 47, pl. vi.
Ocydromus pygmæus, *Forbes, Nature,* xlvi. p. 252 (1892).

It will be seen that I described as the young of *Cabalus dieffenbachii* a male bird from Mangare. Quite recently Mr. H. O. Forbes has received from Mr. Hawkins a series of *Cabalus modestus* from this same island, and there is no longer any question about the distinctness of the species; and the bird which I have described and figured in the present volume as the young of *Cabalus dieffenbachii* (*anteà*, p. 48, Pl. VI.) is really the adult of *C. modestus*. In this species the fully adult birds resemble the young of the species of *Hypotænidia*.

The *adult female* is similar in colour to the male, but is less in size and has a much smaller bill, and the sandy-coloured bars on the under surface are more numerous.

The sexes measure as follows:—

	Total length. in.	Culmen. in.	Wing. in.	Tarsus. in.
♂ ad.	7–8	1·4–1·5	3·4–3·6	1·1–1·15
♀ ad.	7	1·2–1·3	3·0–3·1	1·0

The young bird is much more uniform in colour than the adults, and is leaden grey below with no markings at all, excepting a few sandy-buff bars on the outer wing-coverts and primary quills.

a, *b*, *c*. ♂ ♀ ad. et juv. sk.	Chatham Isl. (*Hawkins*).	H. O. Forbes, Esq.

Add:— Page 52. **Gymnocrex rosenbergi.**

a. Ad. sk.	Celebes (*Von Rosenberg*).	Leyden Museum [P.].

Page 53. Add:—

7*a*. ARAMIDOPSIS.

Aramidopsis, *Sharpe, Bull. Brit. Orn. Club,* no. x. p. liv (June 1893) ..... Type. A. plateni.

Range. Confined to Celebes.

1. Aramidopsis plateni.

Rallus plateni, *Blasius in Russ' 'Isis,'* 1886, p. 103; *Heine & Reichen. Nomencl. Mus. Hein.* p. 321 (1890).
Aramidopsis plateni, *Sharpe, Bull. B. O. C.* no. x. p. liv (1893).

* Named *Cabalus dieffenbachii*, juv., on Plate.

Adult (type of species). General aspect of upper surface above particoloured; the mantle slaty grey; the lower back, rump, upper tail-coverts, and tail ruddy brown; wing-coverts and inner secondaries chestnut-brown, the outer coverts dusky with a wash of olive-brown; primary-coverts and quills uniform sepia-brown; forehead and crown ashy grey washed with olive; the hinder crown, nape, and hind neck deep orange-chestnut, spreading over the sides of the neck to behind the ear-coverts; the lores, sides of crown, and sides of face ashy grey; chin and upper throat white; remainder of under surface leaden grey, with obsolete sandy margins to the feathers of the throat and breast; the abdomen with whitish bars, and the long flank-feathers also black with white bars, as also the under tail-coverts; on each side of the vent a patch of olive-brown; under wing-coverts and axillaries black with white bars: "bill brownish, the base of the mandible yellowish green; feet black; iris brown" (*Platen*). Total length 11·5 inches, culmen 2·2, wing 5·8, tail 1·5, tarsus 2·4, middle toe and claw 2·2. (*Mus. Brunsv.*)

Hab. Celebes.

Add :— Page 57. **Aramides cayanea.**

Young. Covered with dusky blackish down, through which appear the feathers, which are exactly like those of the adult bird, the head and throat covered with rufous down; the hind neck dull brown. (*Mus. Lugd.*)

Add :— Page 58. **Aramides chiricote.**

p. Ad. sk. Bahia. H. O. Forbes, Esq. [P.].

Page 60. Add :—

Subsp. γ. Aramides plumbeicollis.

Aramides plumbeicollis, *Zeledon, Anales Mus. Nac. Costa Rica*, i. p. 131 (1887), ii. p. 3 (1888); *Sharpe, Cat. B. Brit. Mus.* xxiii. p. 53, note; *Richm. Proc. U.S. Nat. Mus.* xvi. p. 528 (1893).

Since writing my description of the genus *Aramides*, the Museum has received from Messrs. Salvin and Godman two examples of this species, which had previously been unknown to me. I find that it is a dark form of *A. albiventris*, with a ruddy mantle and deep chestnut breast, without a perceptibly lighter abdomen. Total length 14 inches, culmen 2·35, wing 7·2, tail 1·95, tarsus 3·05.

Hab. Atlantic side of Central America from Honduras to Nicaragua and Costa Rica.

a. ♂ ad. sk.	River Escondido, Nicaragua, Oct. 4, 1892 (*C. W. Richmond*).	Salvin-Godman Coll.
b. ♀ ad. sk.	San Domingo, Chontales, Nicaragua, Jan. 15 (*W. B. Richardson*).	Salvin-Godman Coll.

Page 64. OCYDROMUS.

Add as an extinct species:—

OCYDROMUS INSIGNIS.

Ocydromus insignis, *Forbes, Tr. N. Zeal. Inst.* xxiv. p. 188 (1892: Chatham Islands).

Page 66. Ocydromus earli.

Add:—

Ocydromus earli, *Buller, Tr. N. Zeal. Inst.* xxiv. p. 66 (1892: Macquarie Isl.), p. 82 (Solander Isl., Foveaux Straits).

Page 68. Diaphorapteryx hawkinsii.

Add:—

Aphanapteryx hawkinsii, *Forbes, Ibis*, 1893, pp. 254, 545.

Mr. Forbes has come to the conclusion that his genus *Diaphorapteryx* cannot be separated from *Aphanapteryx*. The bones in the collection (p. 68) are the typical specimens.

Page 69. ERYTHROMACHUS.

Add:—

	Type.
Miserythrus, *A. Newt. Encl. Brit.* iii. p. 733 (1875)	E. leguati.

1. Erythromachus leguati.

Gelinotte, *Leguat, Voy.* (teste *Newton*).
Erythromachus leguati, *A. Newt. P. Z. S.* 1873, p. 41.
Miserythrus leguati, *A. Newt. Dict. B.* i. p. 219 (1893).

Page 71. Dryolimnas aldabranus.

Add:—

Rougetius aldabranus, *Ridgway, Proc. U.S. Nat. Mus.* xvi. p. 598 (1893).

Mr. Ridgway says that the Aldabra birds described by him were "similar to '*R. gularis*' of Assumption, but without trace of dusky streaks on the dorsal region, and with the white bars on the belly and flanks much less distinct (sometimes almost wanting)." He received eight specimens from Dr. Abbott. The breadth of the dorsal stripes and the barring on the abdomen are characters which vary so much in the Madagascar species, *D. cuvieri*, that I considered (*anteà*, p. 71) *D. aldabranus* to be only a subspecies. One of the specimens from Aldabra has the dorsal striping nearly as pronounced as in *D. cuvieri* from Madagascar. Mr. Ridgway was apparently unaware of Dr. Günther's name for the Aldabra bird, but he has luckily chosen exactly the same name for his supposed new species.

Page 81. Add:—

19*a*. STICTOLIMNAS.

	Type.
Stictolimnas, *Büttik. Notes Leyden Mus.* xv. p. 274 (1893)	S. sharpii.

Range. South America; exact locality unknown.

This genus is closely allied to *Castanolimnas* (p. 80) and *Crecopsis* (p. 81). Curiously enough, although the bird is supposed to come from some part of South America, the nearest approach to it in form that I can find is the Andaman *Castanolimnas canningi*, which it resembles in its barred wings and somewhat decomposed tail-feathers. Of course the style of plumage is quite different in the two birds, and *Castanolimnas* has a much more rounded wing, the fifth and sixth quills being equal and longest and the first and second much shorter. In *Stictolimnas* the second and third quills are equal and longest.

To *Crecopsis* the genus *Stictolimnas* bears a still greater resemblance, but it has a longer and more Ralline bill, a barred wing, and barred flanks. The first primary in *Stictolimnas* falls far short of the second, while in *Crecopsis* they are almost equal.

1. Stictolimnas sharpii.

Adult (type of species). General colour above blackish, with olive-brown margins to the feathers, the back and scapulars varied with small white spots; wing-coverts rather browner than the back, the feathers with blackish bases and larger white spots and streaks, the outer primary-coverts with ovate notches and spots; quills blackish, chequered externally with large ovate markings, which are represented by white bars on the inner web; the bars and spots less distinct on the secondaries, and almost absent on the innermost ones; first primary edged with white along the outer web; tail-feathers dark brown, with longitudinal streaks or spots along the outer web; crown of head and hind neck almost uniform brown, washed with ashy; lores and ring round the eye isabelline; above the ear-coverts a streak of light ashy, forming a faint eyebrow; sides of face and throat uniform ashy grey, the fore neck and breast ashy grey mottled with brown bases to the feathers; sides of breast and flanks blackish, with broad brown margins, and varied with spots and bars of white; thighs, vent, and under tail-coverts ashy grey; under wing-coverts blackish, barred and edged with white. Total length 9 inches, culmen 1·05, wing 5·4, tail 2·5, tarsus 1·6, middle toe and claw 1·65. (*Mus. Lugd.*)

Hab. ? South America.

Add :— Page 82. **Crex crex.**

Crex crex, *North, Rec. Austr. Mus.* ii. p. 82 (1893 : N. S. Wales).

Add :— Page 86. **Œnolimnas isabellina.**

Young. Exactly reproduces the colour of the adult, with the exception that the bill is brown instead of yellow, and the head is brown instead of olive. (*Mus. Lugd.*)

b. Ad. sk. Menado, N. Celebes (*Duivenbode*). Leyden Museum.

Page 92, footnote. **Porzana marginalis.**

During a visit to the Leyden Museum I was pleased to find two examples of *P. marginalis*, which was before unknown to me, and I had therefore been forced to place the species amongst those which I could not arrange in position. I am now able to state that the *Porzana marginalis* of Hartlaub is the bird described by Canon Tristram as *Crex suahelensis*, which I have placed in the genus *Limnobœnus* (*antea*, p. 150). The species is certainly not a true *Porzana*, and may for the present be called *Limnobœnus marginalis* (Hartl.); but it is scarcely a true *Limnobœnus*, and will probably have to be separated generically on account of its peculiar style of coloration.

The revised synonymy is here given :—

Limnobœnus marginalis.

Porzana marginalis, *Bp. C. R.* xliii. p. 599 (1856, descr. nullâ); *Hartl. Orn. W.-Afr.* p. 241 (1857: Gaboon); *Tacz. J. f. O.* 1870, p. 54 (Biskra, Algeria); *id. J. f. O.* 1871, p. 61; *Oust. Nouv. Arch. Mus.* (2) ii. *Bull.* p. 143 (1879: Gaboon); *Sharpe, Cat. B.* xxiii. p. 92, note (1894).

Ortygometra marginalis, *Heugl. J. f. O.* 1870, p. 385; *Gurney, in Anders. B. Dam. Ld.* p. 318 (1872: Ondonga).

Crex suahelensis, *Tristr. P. Z. S.* 1882, p. 93; *Reichen. & Schalow, J. f. O.* 1883, p. 402; *Tristr. Cat. Coll.* p. 28 (1889).

Crex marginalis, *Sharpe, ed. Layard's B. S. Afr.* p. 613 (1884).

Limnobœnus suahelensis, *Sharpe, Cat. B. Brit. Mus.* xxiii. p. 150 (1894).

Limnobœnus marginalis, *Sharpe, Notes Leyden Mus.* xv. p. 270 (1893).

Add :— Page 103. **Porzana intermedia.**

Porzana intermedia, *Sharpe, Notes Leyden Mus.* xv. p. 269 (1893).

This species ranges as far east as Lake Baikal. (*Mus. Lugd.*)

Add :— Page 106. **Porzana affinis.**

Ortygometra affinis, *Forbes, Ibis*, 1893, p. 531 (Chatham Isl.).

b, c. Ad. sk.	Near Christchurch, New Zealand.	H. O. Forbes, Esq. [P.].

Add :— Page 111. **Porzana tabuensis.**

Ortygometra tabuensis, *Forbes, Ibis*, 1893, p. 531 (Chatham Isl.); *Sharpe, Notes Leyd. Mus.* xv. p. 269 (1893).

Page 114. **Pennula ecaudata.**

From an examination of the typical specimen of *Rallus sandwichensis* in the Leyden Museum, I have come to the conclusion that I was wrong in suggesting that this species was the same as *Pennula ecaudata*, and consequently Dr. Hartlaub is right in his identifications. The species must stand as

Pennula sandwichensis.

Sandwich Rail, *Lath. Gen. Syn.* iii. pt. 1, p. 237 (1785).
Rallus sandwichensis, *Gm. Syst. Nat.* i. p. 325 (1788); *Hartl. Abhandl. nat. Ver. Bremen*, xii. Heft 3, p. 397 (1892); *Sharpe, Bull. Brit. Orn. Club*, viii. p. xlii (April 1893).
Pennula ecaudata (pt.), *Sharpe, Cat. B. Brit. Mus.* xxiii. p. 114 (1894).

Adult (type of species). General colour above ruddy brown with blackish centres to the feathers, producing a broadly striped appearance; wing-coverts like the back and very much elongated; quills blackish with rusty-brown edges; tail-feathers blackish, completely hidden by the long feathers of the rump; head more uniform brown, with a ruddy tinge; sides of face like the head; throat and under surface of body dark vinous red, a little paler on the latter. Total length 5·3 inches, culmen 0·8, wing 2·8, tail 0·7, tarsus 1·3, middle toe and claw 1·35. (*Mus. Lugd.*)
Hab. Sandwich Islands; apparently extinct.

Add :— Page 115. **Aphanolimnas monasa.**

Kittlitzia monasa, *Finsch, MT. orn. Ver. Wien*, p. 240 (1893).
Aphanolimnas monasa, *Finsch, Orn. MS. Schutze, Vogelw.* xviii. p. 3, pl. iv. (1893).

Add :— Page 116. **Corethrura pulchra.**

Corethrura pulchra, *Sharpe, Notes Leyd. Mus.* xv. p. 269 (1893).

In the Leyden Museum is a young bird in changing plumage. It has the rufous head and chest of the adult, but the centre of the fore neck and the rest of the under surface are light brown, with a few freshly moulted white-spotted feathers interspersed.

Page 123. Rallicula rubra.

The typical specimen in the Leyden Museum is mounted and shows that the tail is very bushy, though this is also the case with *Corethrura* to a less extent. In *Rallicula*, however, the bill is much more massive and is about equal to the outer toe and claw, whereas in *Corethrura* the bill is much shorter than the latter.

a. Ad. sk.	Arfak Mountains, N.W. New Guinea (*Byrne*).	H. Veitch, Esq.

This specimen was recently received by the Museum from one of Mr. Veitch's collectors and is probably the female of *R. rubra*. It differs from all the specimens I have seen as yet, in having the mantle longitudinally streaked with rufous, and the wing-coverts,

being edged with rufous, continue this streaked appearance on the wing. The abdomen is dusky brown, with a few rufous cross bars. Total length 9·5 inches, culmen 1·05, wing 4·2, tail 2·9, tarsus 1·45.

Add :— Page 130. **Poliolimnas cinereus.**

k'. Ad. sk.	Kajeli, Bourou, Dec. 5 (*H. O. F.*).	H. O. Forbes, Esq. [P.].

Add :— Page 133. **Porzanula palmeri.**

Porzanula palmeri, *Rothsch. Avif. Laysan*, pt. i. p. 9, pl. 5 (1893).

Page 135. Key to the species of *Creciscus*.

Add to section :—

b'. Breast whitish, rufous or grey on the sides.
e'''. Sides of face and ear-coverts bluish grey; forehead also slaty grey ..... *cinereiceps*.

Add :— Page 139. **Creciscus melanophæus.**

Crex lateralis, *J. E. Gray, in Griffith's ed. Cuvier, An. Kingd.* iii. p. 542, cum tab. (1829).
Ortygometra lateralis, *G. R. Gray, List Gallæ Brit. Mus.* p. 199 (1844).

Specimens from Surinam are in the Leyden Museum.

Page 140. Add :—

7 *a*. Creciscus cinereiceps.

Porzana cinereiceps, *Lawr. Ann. Lyc. N.Y.* xi. p. 90 (1875); *Ridgw. Proc. U.S. Nat. Mus.* i. p. 252 (1878: Costa Rica); *id. op. cit.* vi. p. 409, note (1883); *Richm. op. cit.* xvi. p. 528 (1893).
Porzana leucogaster, *Ridgway, Proc. U.S. Nat. Mus.* vi. p. 408 (1883).
Creciscus leucogaster, *Sharpe, anteà*, p. 140.
Creciscus cinereiceps, *Sharpe, anteà*, p. 141.

Adult male. Similar to *C. albigularis*, but easily distinguished by its slaty-grey forehead and the bluish ashy ear-coverts and sides of face: "bill apple-green at base; feet olive; iris carmine" (*C. W. R.*). Total length 5·3 inches, culmen 0·7, wing 3·15, tail 0·75, tarsus 1·15.

Adult female. Resembles the male in colour. Total length 4·6 inches, culmen 0·65, wing 2·9, tail 0·7, tarsus 1·1.

Young. Sooty brown above, with reddish feathers here and there, indications of the adult plumage; throat and centre of breast white, with sooty-brown bars on the latter; sides of body, thighs, and under tail-coverts uniform sooty brown.

Hab. Atlantic side of Nicaragua.

a–f. ♂ ad. et juv.; *g–l.* ♀ ad. et juv. sk.	Escondido River, Nicaragua, June–Sept. (*C. W. Richmond*).	Salvin-Godman Coll.

Mr. Richmond has given very careful notes on the above series (*l. c.*), and his contention that *P. leucogaster* of Ridgway is the same as *P. cinereiceps* appears to be fully borne out.

Page 146. **Limnobænus fuscus.**

Add "Borneo" to the list of habitats.

Page 149. **Limnobænus paykulli.**

Add "Philippines" to the list of habitats.

Add:— Page 153. **Amaurornis olivacea.**

Tribonyx olivacea, *Licht. Nomencl. Mus. Berol.* p. 97 (1854).

Page 153. **Amaurornis moluccana.**

Salvadori thinks that the type of *Gallinula franki* of Schlegel is a young bird of *Amaurornis moluccana*; but I am not quite convinced that this is the case, as the bird is entirely chocolate-brown above and dark brown below, dark ashy on the breast and abdomen, and again chocolate-brown on the vent and under tail-coverts, throat dark ashy grey. Total length 9 inches, culmen 1·2, wing 5·5, tail 2·1, tarsus 1·95, middle toe and claw 2·4.

The dark bill would appear to confirm Count Salvadori's idea that the bird is young.

Page 163. **Neocrex erythrops.**

The birds described by Schlegel as *Porzana schomburgki* (Cat. Ralli, p. 37) are really *Neocrex erythrops*, as suspected by Sclater and Salvin (P. Z. S. 1868, p. 459).

Add:— Page 169. **Gallinula chloropus.**

Gallinula chloropus pyrrhorhoa, *Sibree, Ibis*, 1892, p. 114.

Add:— Page 182. **Porphyriops melanops.**

u. Ad. st.	? Patagonia.	Sir W. Burnett and Admiral Fitzroy [P.].
v. Ad. sk.	S. America.	Rev. W. Hennah [P.]. (Type of *G. crassirostris*.)

Page 186. **Psammocrex petiti.**

This is *Himantornis hæmatopus*, Hartl. (*anteà*, p. 69), as I am informed by Dr. Oustalet.

Add :— Page 189. **Porphyriola martinica.**

Ionornis martinicus, *Scott*, *Auk*, ix. pp. 12, 212 (1892 : Jamaica) ; *Attwater*, *t. c.* p. 232 (S. Texas).

Add :— Page 191. **Porphyriola parva.**

Porphyrio parvus, *Graham Kerr*, *Ibis*, 1892, p. 149 (R. Pilcomayo).

Add :— Page 250. **Grus grus.**

Grus communis, *Saunders*, *Man.* p. 507 (1889) ; *Lilf. Col. Fig. Birds Brit. Isl.* pt. xii. (1890).

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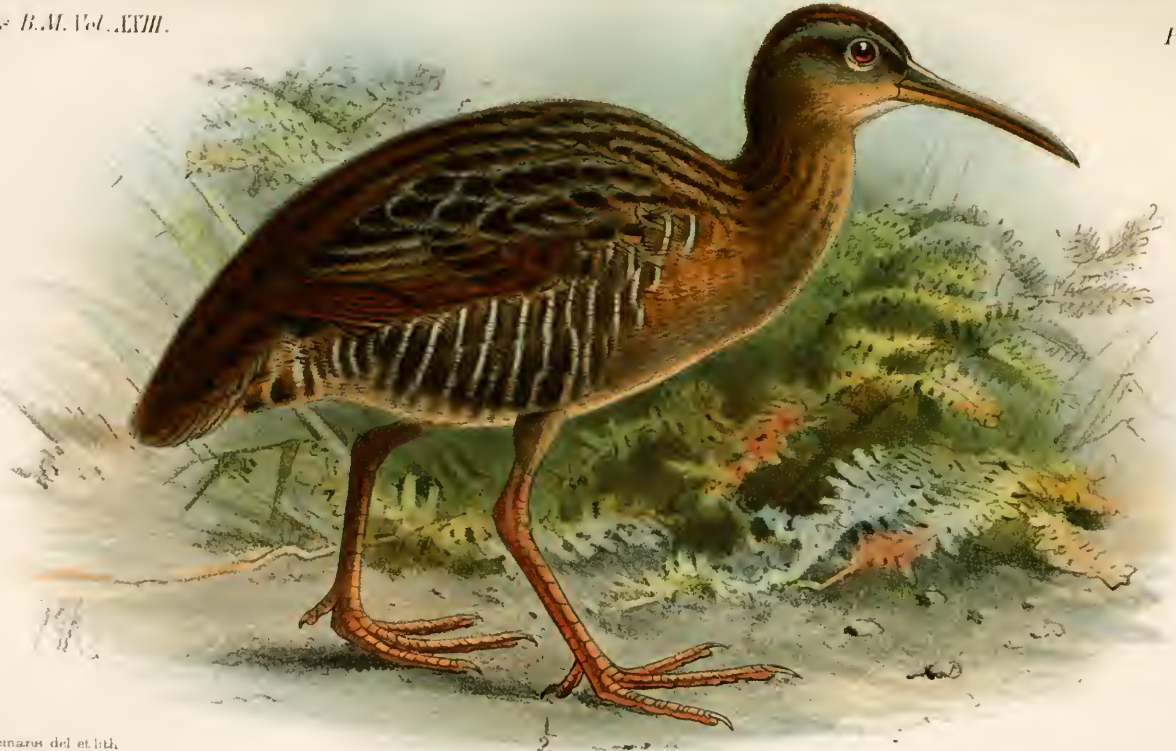

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Rallus saturatus.

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1. Rallus aequatorialis. *2. Rallus virginianus.*

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Rallus semiplumbeus.

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Limnopardalus vigilantis.

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Aramides gutturalis.

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Cabalus dieffenbachii Juv.

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Eulabeornis woodfordi.

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1. Rallina euryzonoides. 2. Rallina minahassæ.

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Corethrura pulchra

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